Multi-Channel AV Master Unit

ENGLISH

Owner's Manual

AVM-P9000R

This product conforms to new cord colors.

Pioneer

Contents

Before Using This Product 3

Key Finder 3
About This Product 4
- Video System of a Connected Component
- Output Setting of the DVD Player

About This Manual 5
To Ensure Safe Driving 6
- When Using a Display connected to Rear Video Output

Resetting the Microprocessor 7
Precaution 7
In Case of Trouble 7
When using the 50-Disc Type Multi-CD Player 7
Remote Control and Care 8
- Batteries

Operation for Each Source Unit 9

To Listen to Music 9
- When connecting a Multi-DVD player

Virtual Theater Quick Tour 11

Menu Structure 12
Information Screen 13
- Switching the Information Screen

Using the Screen Pictures (Selecting the NAVI, VTR etc.) 15

Selecting the Mobile Navagation Picture 15
Selecting the Video Source 15
- Switching the Video ON/OFF Mode
- Selecting the Video Source

Selecting the BGTV, BGVTR 16
Selecting the Picture of Rear Display 17
Adjusting the Picture 18

Built-In Tuner 19

Basics 19
Operation at the Function Menu Screen 20
- Accessing the Tuner Function Menu

Operating Each Function 21
- Best Stations Memory (BSM)
- Local Seek Tuning
- TA function
- News Program Interrupting Setting
- AF function
- Regional Function
- PGM button

Display the Flip-Down Plate 24
Recalling Preset Stations by Preset Station List 24

Using the RDS Functions 25

What is RDS? 25
Displaying the Frequency 25
AF Function 26
- Activating/Deactivating the AF Function

PI Seek Function 27
- PI Seek
- Auto PI Seek (for preset station)

Regional Function 27
- Activating/Deactivating the REG Function

TA Function 28
- Activating/Deactivating the TA Function
- Canceling Traffic Announcements
- Adjusting the TA Volume
- TP Alarm Function

PTY Function 30
- Searching the PTY
- News Program Interruption Setting
- PTY Alarm
- PTY List

Radio Text 33
- Radio Text Display
- Storing Radio Text in Memory
- Recalling Preset Radio Text

Multi-DVD Player 35

Basics 35
Operation at the Function Menu Screen (DVD, Video CD) 36
- Accessing the DVD Function Menu (DVD, Video CD)

Operating Each Function 37
- Repeat Play
- Pause
- PGM button

Operation at the Function Menu Screen (CD) 39
- Accessing the DVD Function Menu (CD)

Operating Each Function 40
- Repeat Play
- Random Play
- Scan Play
- ITS Play
- Pause
- PGM button

Display the Flip-Down Plate 43
Disc Title Input for CD and Video CD 43
Selecting Discs by Disc Title List 44

Multi-CD Player 45

Basics 45
Operation at the Function Menu Screen 46
- Accessing the Multi-CD Function Menu

Operating Each Function 47
- Repeat Play
- Random Play
- Scan Play
- ITS Play
- Pause
- Compression and DBE
- PGM button

Display the Flip-Down Plate 50
Disc Title Input 51
Getting Text Displayed
(for CD TEXT compatible type) 52
Selecting Discs by Disc Title List 53
ITS (Instant Track Selection)..... 53
• ITS Programming (ITS)
• Erase a Track Program
• Erase a Disc Program

TV Tuner 55
Basics 55
Operation at the Function Menu Screen 56
• Accessing the TV Tuner Function Menu

CD Player 57
Basics 57
Operation at the Function Menu Screen 58
• Accessing the CD Function Menu

Multi-MD Player 59
Basics 59
Operation at the Function Menu Screen 60
• Accessing the Multi-MD Function Menu

DAB Tuner 61
Basics 61
Operation at the Function Menu Screen 62
• Accessing the DAB Tuner Function Menu
About This Product's Indications 63
Display the Flip-Down Plate 64
Recalling Preset Services by Preset Service List 64

Adjusting Audio (Basic) 65
Accessing the Audio Menu 65
Proper Setting for the In-car
Acoustic Characteristics..... 66
Cabin Equalizer 66
• Operation at the Audio Setting Menu
Position Selector..... 67
Balance Adjustment 67
Adjustments for Speaker 68
• Operation at the Speaker Setting Menu
Equalizer Curve 70
Source Level Adjustment (SLA)..... 71
Sound Field Control (SFC)..... 72
Dynamic Range Control 73
Direct Control ON/OFF 73
Loudness Adjustment 74

Fine Adjusting Audio (Expert) 75
Before Getting Started 75
Adjusting for the Speakers In Use 75
• Accessing the Speaker Setting Menu
• Adjusting the Speakers' Output Levels using a Test Tone
• Selecting a Crossover Frequency
• Correcting the Subwoofer's Phase
Adjusting the Cabin Equalizer (Expert)..... 78
• Accessing the Expert Setting Menu
• Operation at the Expert Setting Menu
• Adjusting 3-Band Parametric Equalizer
• Adjusting the Speakers' Output Level
• Adjusting the Time Alignment
• Storing the Adjusted Cabin EQ into Memory
• Reset Adjusted Cabin EQ
Adjusting the Equalizer Curves..... 83

Changing the Initial Settings 85
Accessing the Initial Settings Menu 85
Changing the FM Tuning Step 86
Setting the DAB Priority Function..... 86
Switching the Auto PI Seek 86
Correcting Distorted Sound 87
Setting the Time 87
Adjusting the Display Position 88
Changing the Pattern of Plate 88

Other Functions 89
Switching the Center Screen and
Time Display in the Center Room..... 89
Switching the Color of
the Spectrum Analyzer 89
Listening Sounds or Viewing Images from
Additional Units 90
• Accessing the Set Up Menu
• Switching the AUX Source
• Switching the Video Mode
• Switching the Speaker Input Mode
AUX Title Input 92
Muting Function 92
• Mobile Navigation Unit Muting
• Cellular Telephone Muting

Troubleshooting 93

Terms 96

Installation 97

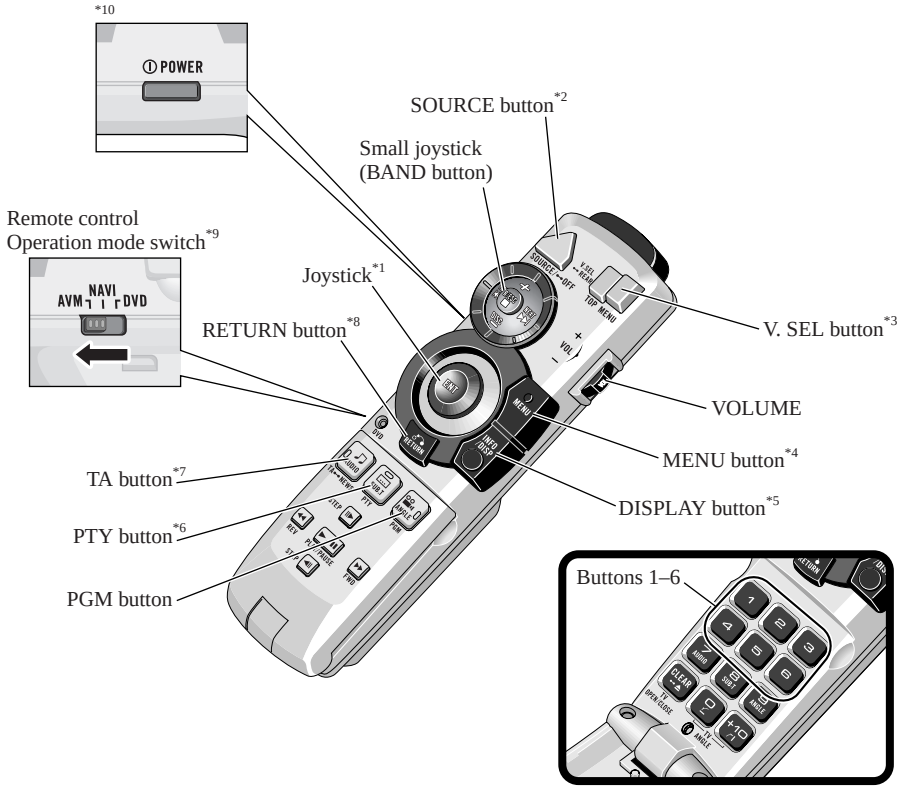
Specifications 110

Before Using This Product

Key Finder

Remote Controller

Use buttons *1–*10 to control your Navigation System.



Using it as a Navigation System Remote Control

In areas where car navigation is available, it can be used to control your navigation system. To operate the navigation system, switch the operation mode switch to “NAVI”.

*1 Joystick/OK button
*2 NAVI button
*3 MENU button
*4 – button
*5 + button
*6 NEXT OPTION button
*7 TALK button
*8 RETURN button
*9 Remote control operation mode switch
*10 ON/OFF button

Note:

- Buttons other than those mentioned above cannot be used when the “NAVI” setting is selected.
- This remote control can also be used as a Multi-DVD player remote control. (Refer to the Multi-DVD player’s manual.)

About This Product

- This product complies with the EMC Directives (89/336/EEC, 92/31/EEC) and CE Marking Directive (93/68/EEC).

The tuner frequencies on this product are allocated for use in Western Europe, Asia, the Middle East, Africa and Oceania. Use in other areas may result in improper reception. The RDS function operates only in areas with FM stations broadcasting RDS signals.

This product features a “Virtual Theater” Graphical User Interface which is referred to in this manual as the “Virtual Theater Quick Tour”. Once you understand the basic structure of the “Virtual Theater”, you will be able to navigate quite easily throughout it.

The basic structure of the “Virtual Theater” is actually quite simple. Everything is centralized around a base location known as the “Center Room”. (Refer to “Virtual Theater Quick Tour” on page 11.)

Dolby Digital*/DTS** Compatibility (When combining the product with a Pioneer 6-Disc Multi-DVD Player such as the XDV-P9)

When using this product with a Pioneer 6-Disc Multi-DVD Player, you can enjoy the atmosphere and excitement provided by DVD-Video software featuring 5.1 channel recordings.

DOLBY DIGITAL

DIGITAL dts SURROUND

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Video System of a Connected Component

This product is NTSC/PAL system compatible. When connecting an external component to this product, be sure the component is compatible with the same video systems. If it is not, images will not be correctly reproduced.

Output Setting of the DVD Player

When connecting Pioneer's Multi-DVD player such as the XDV-P9, make the "Digital Output Setting (DIGITAL OUTPUT)" and "Digital and Analog Audio Output Setting (OUT SELECTION)" as follows:

Function	Setting
DIGITAL OUTPUT	DOLBY DIGITAL/LPCM
OUT SELECTION	48 kHz

Refer to the DVD Player manual for details on how to make those settings.

Precaution:

- Be sure to set the correct position. If not, no audio can be output.

About This Manual

This product features a number of sophisticated functions ensuring superior reception and operation. All are designed for the easiest possible use, but many are not self-explanatory. This operation manual is intended to help you benefit fully from their potential and to maximize your listening enjoyment.

We recommend that you familiarize yourself with the functions and their operation by reading through the manual before you begin using this product. It is especially important that you read and observe the "Precaution" on page 7 and in other sections.

To Ensure Safe Driving

⚠ WARNING

- To avoid the risk of accident and the potential violation of applicable laws, this product is not for use with a video screen that is visible to the driver.
- In some countries or states the viewing of images on a display inside a vehicle even by persons other than the driver may be illegal. Where such regulations apply, they must be obeyed.

To ensure safe vehicle operation, do not operate this product during driving. If you try to view pictures from a DVD-Video disc or other sources on the front display while the parking brake is not engaged, this warning will appear:

When you park your car in a safe place and apply the parking brake, the picture appears on the screen.

When Using a Display connected to Rear Video Output

This product's Rear video output is for connection of a display to enable passengers in the Rear seats to watch the Video or DVD.

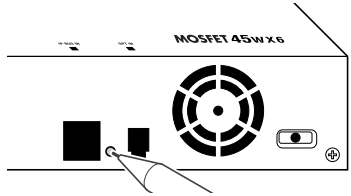
⚠ WARNING

- NEVER install the display in a location that enables the Driver to watch the Video or DVD while Driving.

Resetting the Microprocessor

The microprocessor must be reset under the following conditions:
When using this product for the first time after installation.
When the machine fails to operate properly.
When strange (incorrect) messages appear on the display.

- **To reset the microprocessor, press the RESET button on the unit with a pen tip or other pointed instrument.**



Precaution

- Keep this manual handy as a reference for operating procedures and precautions.
- Always keep the volume low enough for outside sounds to be audible.
- Protect this product from moisture.
- If the battery is disconnected, the preset memory will be erased and must be reprogrammed.

In Case of Trouble

Should this product fail to operate properly, contact your dealer or nearest authorized PIONEER Service Station.

When using the 50-Disc Type Multi-CD Player

The available functions of the 50-Disc Type Multi-CD Player are described in this manual. Note that other 50-Disc Type Multi-CD Player functions cannot be used with this product.

Remote Control and Care

This product is equipped with a remote controller for convenient operation.

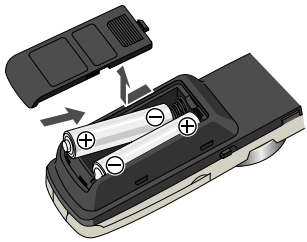
- Point the controller in the direction of the signal reception on the color display (sold separately) to operate.
- When the controller is not in use, attach it firmly to the provided Mounting base.

Precaution:

- Do not store the remote controller in high temperatures or direct sunlight.
- The controller may not function properly in direct sunlight.
- Do not let the remote controller fall onto the floor, where it may become jammed under the brake or accelerator pedal.

Batteries

- **Remove the cover on the back of the remote controller and insert the batteries with the (+) and (–) poles pointing in the proper direction.**



Precaution:

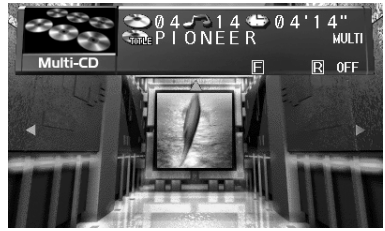
- Use only AAA or IEC R03 1.5 V batteries.
- Remove the batteries if the remote controller is not used for a month or longer.
- Do not attempt to recharge the supplied batteries.
- Do not mix new and used batteries.
- In the event of battery leakage, wipe the remote controller completely clean and install new batteries.
- When disposing of used batteries, please comply with governmental regulations or environmental public institution's rules that apply in your country/area.

Operation for Each Source Unit

To Listen to Music

The following explains the initial operations required before you can listen to music.

1. Select the desired source (e.g. Multi-CD Player).



Each press changes the Source ...

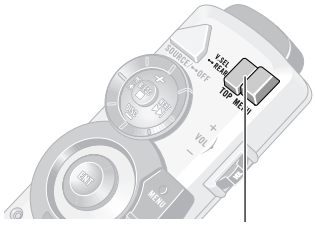
Each press of the SOURCE button selects the desired source in the following order:

DVD Player ➞ TV ➞ VIDEO ➞ Tuner ➞ DAB ➞ Multi-MD Player ➞ CD Player ➞ Multi-CD Player ➞ External 1 ➞ External 2 ➞ AUX ➞ Speaker Input

Note:

- External Unit refers to a Pioneer product (such as one available in the future) that, although incompatible as a source, enables control of basic functions by this product. Two External Units can be controlled by this product, although “External” is displayed whether you select External Unit 1 or External Unit 2. When two External Units are connected, the allocation of them to External Unit 1 or External Unit 2 is automatically set by this product.
- In the following cases, the sound source will not change:
  * When the sound source from another product is not connected to this product.
  * When no magazine is set in the Multi-CD player.
  * When no magazine is set in the Multi-DVD player.
  * When no disc is set in the CD player.
  * When no disc is set in the Multi-MD player.
  * When the AUX (external input), VIDEO and Speaker Input are set to OFF. (See pages 90, 91.)
- When this product’s blue/white lead is connected to the car’s Auto-antenna relay control terminal, the car’s Auto-antenna extends when this product’s source is switched ON. To retract the antenna, switch the source OFF.

2. Select the desired picture.



Each press changes the picture ...

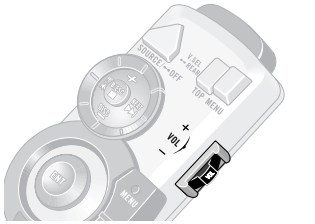
Each press of the V. SEL button selects the source in the following order:

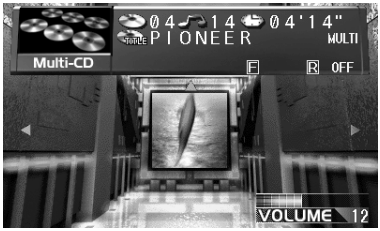
Source Screen ➞ Mobile Navigation Unit (NAVI) ➞ TV Tuner Unit (BGTV) ➞ Video (BGVTR)

Note:

- Select “Source Screen” to hear/view playback of normal audio/video sources.
- You can select the Pioneer Mobile Navigation Unit only when that unit is switched on.
- You can select the TV Tuner Unit only when connecting it to this product. (The video source selected with the TV Tuner is displayed.)
- To select the VIDEO mode, switch the VIDEO mode ON in the Set Up Menu. (See page 15.)

3. Raise or lower the volume.





4. Turn the source OFF.

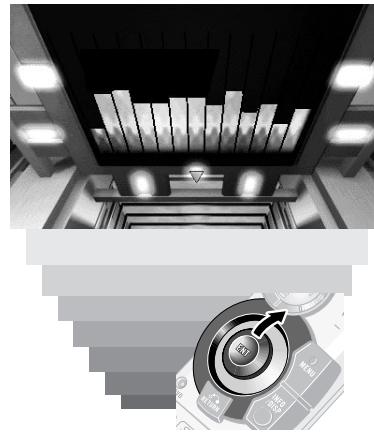
Hold for 1 second

When connecting a Multi-DVD player

You can switch on and off the Multi-DVD player independently from other units. Switching this product off independently does not switch the Multi-DVD player off. You have to switch the Multi-DVD player off separately.

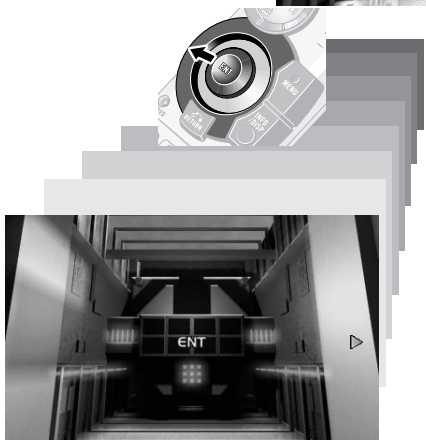
- If, while “DVD” is selected as source, you switch off the Multi-DVD player, you can confirm it on the display.

Virtual Theater Quick Tour

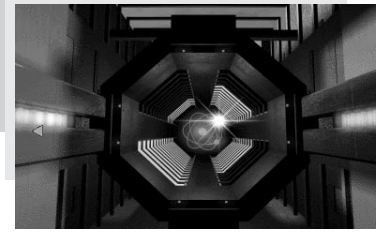


Move the joystick up to move in virtual space to the Spectrum Analyzer Room. The spectrum analyzer features a graph indicating the frequency of the sound currently in play.

When the power is turned on, the Center Room screen is displayed automatically. The screen appearing at the center of the room can be changed. (See page 89.)



Move the joystick left to move to the entrance of the Function Menu Screen. If you click the joystick, you switch to the Function Menu Screen. Further explanation on how to use the Function Menu Screen will follow.

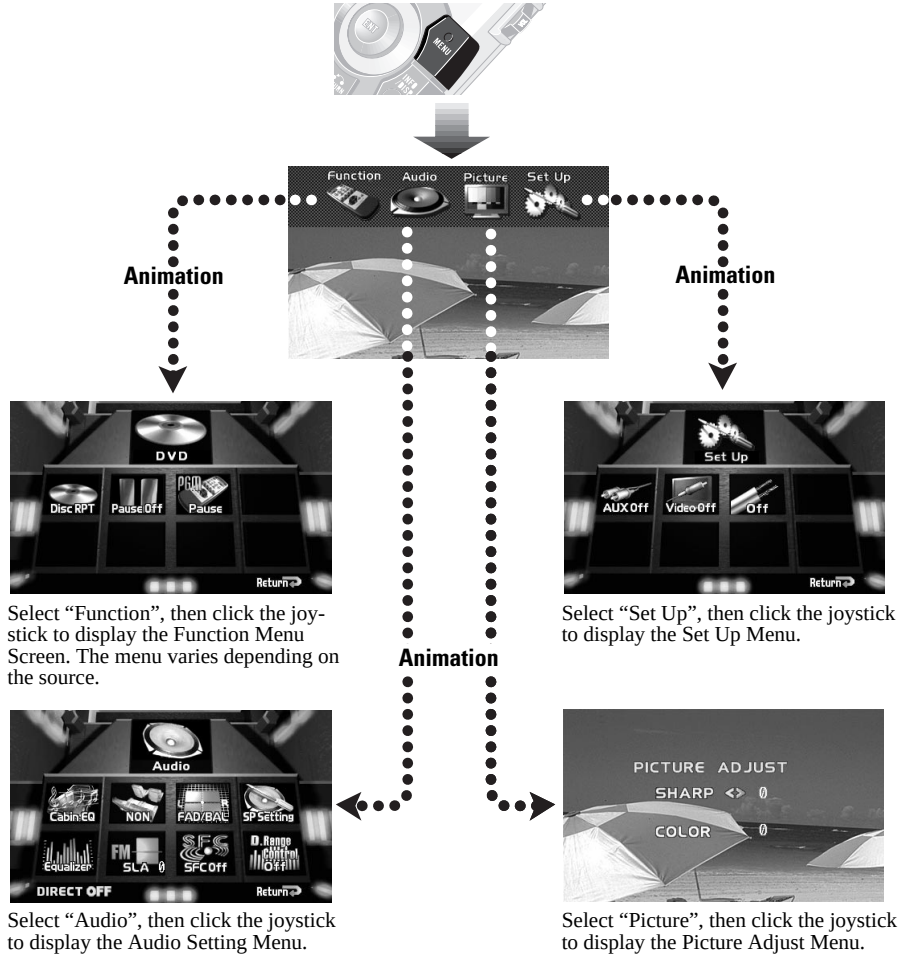


Move the joystick right to move to the Power Band Room. This screen provides a visual image of the volume settings. Click the joystick to change the power band display as below.

Monaural display ⟷ 4-band display

Menu Structure

The setting and adjusting operation of this product is done from the Main Menu. Press the MENU button, and four main menu icons appear on the screen: “Function”, “Audio”, “Picture” and “Set Up”. The selected function is highlighted in green. Move to each menu screen from this opening screen.



Select “Function”, then click the joystick to display the Function Menu Screen. The menu varies depending on the source.

Select “Set Up”, then click the joystick to display the Set Up Menu.

Select “Audio”, then click the joystick to display the Audio Setting Menu.

Select “Picture”, then click the joystick to display the Picture Adjust Menu.

- The Picture icon appears only when the selected source is a visual medium.

Returning to the Center Room

You can return to the Center Room after you are finished in any of the sub-rooms quite simply with either of 2 options. Either use the joystick to select the Return option in that rooms screen, then click the joystick, or simply press the RETURN button on the remote controller. In either case, you are brought back to the Center Room.

Click the joystick

Click the joystick means to press the center of the joystick down and release one time.

Information Screen

By pressing the DISPLAY button on this remote control unit you can show the title list, make changes to the Source Plate Information Screen, etc.

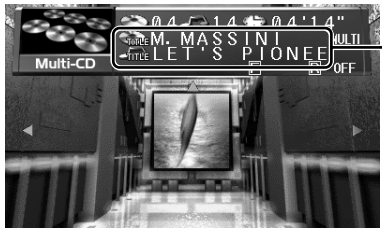
Switching the Information Screen

In the following, the Multi-CD Player is used as an example of source.

■ Multi-CD Player

Pressing the DISPLAY button switches the Information display on the Source Plate as follows. The title list appears on the plate and you can input disc titles here. You can also switch the titles displayed on the Flip-Down Plate.

Source Plate Display



Entered title is displayed.

■ When playing a CD TEXT disc
The Disc Title and Track Title are displayed.

Flip-Down Plate Display

■ When playing a CD TEXT disc
Pressing the DISPLAY button switches the display as follows:

1 **Track Title**
Disc Title
⬇
2 **Disc Artist Name**
Disc Title
⬇
3 **Track Artist Name**
Disc Title

No Plate

Note:
- If the Multi-CD Player in use is not CD TEXT compatible, you cannot access CD TEXT-specific display features.

■ Tuner

Source Plate Display
⬇
Flip-Down Plate Display (Preset Station List)
⬇
Flip-Down Plate Display (Radio Text Display)
⬇
Flip-Down Plate Display (PTY Search Plate)
⬇
No Plate

■ TV

Source Plate Display
⬇
No Plate

- For televisions, the Source Plate Display disappears after about 8 seconds.

■ Multi-DVD Player

Source Plate Display
⬇
Flip-Down Plate Display
⬇
No Plate

- For DVDs, Video CDs and CDs, indications appear on the Flip-Down Plate Display as follows:

  For DVDs:
  Title list only

  For Video CDs:
  Title list and "Title Edit" for title input

  For CDs:
  Title list, "Title Edit" for title input, and ITS memory "ITS MEMO", "ITS Clear".

■ CD Player

Source Plate Display
⬇
Flip-Down Plate Display
⬇
No Plate

■ DAB Tuner

Source Plate Display
⬇
Flip-Down Plate Display (Presert Service Label List)
⬇
Flip-Down Plate Display (Dynamic Label Display)
⬇
Flip-Down Plate Display (PTY Search Plate)
⬇
No Plate

■ Multi-MD Player

Source Plate Display
⬇
Flip-Down Plate Display
⬇
No Plate

- Each press of the DISPLAY button switches the display on the Source Plate as follows:
  1. Disc Title
     Track Title

  2. Track Title
     Disc Title

  Pressing the DISPLAY button for 2 seconds scrolls the upper title.

■ External Devices

External Devices are VIDEO, AUX, Speaker Input and External Units.

Source Plate Display
⬇
No Plate

- For visual sources, the Source Plate Display disappears after about 8 seconds.

Using the Screen Pictures (Selecting the NAVI, VTR etc.)

Selecting the Mobile Navigation Picture

You can switch the picture (separately from the audio) of the Mobile Navigation to another source while listening to the sound from the current source.

Switch the power to your navigation unit ON before performing operations. (Refer to the navigation manual.)

- **Select the "NAVI" by pressing the V.SEL button.**

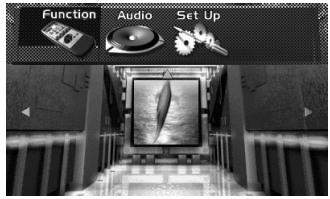
Note:
- You can select the Pioneer Mobile Navigation Unit only when that unit is switched on.
- If, while "NAVI" is selected as source, you switch off your navigation unit, you can confirm it on the display.

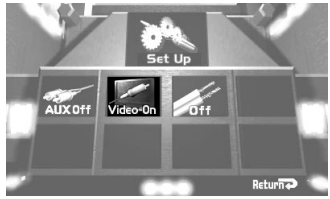
Selecting the Video Source

Switching the Video ON/OFF Mode

You can select the video unit when one is connected to the video input on this product.
To select the Video mode, switch the Video in the Set Up Menu On.

1. **Press the MENU button.**
   The main menu icons whirl down, with "Function" highlighted in green.
2. **Select "Set Up" by moving the joystick.**
   "Set Up" is highlighted in green.
3. **Click the joystick.**
   The Set Up Menu appears.
4. **Select "Video" by moving the joystick.**
   "Video" is highlighted in green.
5. **Click the joystick.**
   Each click toggles Video On/Off.
6. **Press the RETURN button.**
   You go back to the Center Room.





Selecting the Video Source

You can enjoy video and audio entertainment from external components connected to video input.

Switch the power to your video unit ON before performing operations. (Refer to the video unit manual.)

- **Select "Video" by pressing the SOURCE button.**

Selecting the BGTV, BGVTR

You can switch the picture (separately from the audio) of the TV or Video to another source while listening to the sound from the current source.

Switch the power to your video unit ON before performing operations. (Refer to the video unit manual.)

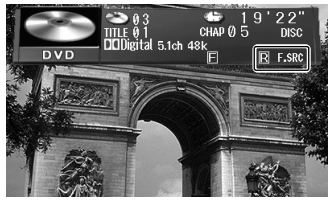
- **Select "BGTV" or "BGVTR" by pressing the V.SEL button.**

Selecting the Picture to Rear Display

You can also enjoy video and audio entertainment from external components connected to video input on a rear display (sold separately).
This is only possible if a rear display is connected.

Switch the power to your video unit ON before performing operations.
(Refer to the video unit manual.)

- **Press the V.SEL button for 2 seconds.**
  Each press of the V.SEL button for 2 seconds selects the source in the following order:
  OFF → Link to Front Display Source (F.SRC)
  → Video (VTR)

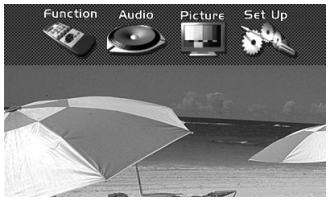


Note:
- The rear display will only display audiovisual sources (i.e. Multi-DVD, TV Tuner, etc.). Audio only sources (MD, CD, FM/MW/LW Tuner) cannot be heard from the rear display.
- You cannot switch rear display source audio and video separately.

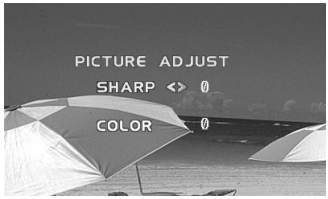
Adjusting the Picture

You can independently adjust Video, DVD and TV Tuner unit picture quality.
You can also make adjustments to the picture quality when viewing with the car courtesy light ON or OFF, and store both settings in memory.

1. **Select the desired source (picture) by pressing the SOURCE button.**
2. **Press the MENU button.**
   The main menu icons whirl down.
3. **Select "Picture" by moving the joystick right.**
   "Picture" is highlighted in green.
4. **Click the joystick.**
   The "PICTURE ADJUST" screen appears.

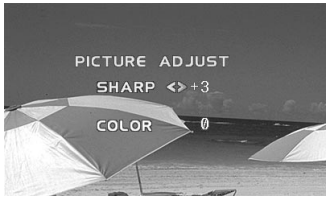


5. **Select an option by moving the joystick up/down.**
   The selected option is highlighted in yellow.
   You can adjust the selected option.



Option	Adjustment
SHARP	You can adjust the sharpness of the picture. • The display changes as the distinction of the picture changes from sharp to dull.
COLOR	You can adjust the color of the picture. • The display changes as the distinction of the picture changes from light to dark.

6. **Adjust the selected option by moving the joystick left/right.**
7. **Cancel the "PICTURE ADJUST" screen by pressing the RETURN button.**



Note:
- After entering the "PICTURE ADJUST" screen, if you do not perform an operation within about 30 seconds, the "PICTURE ADJUST" screen is automatically canceled.

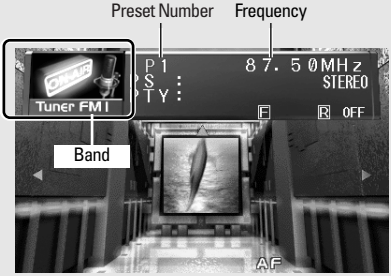
Built-In Tuner

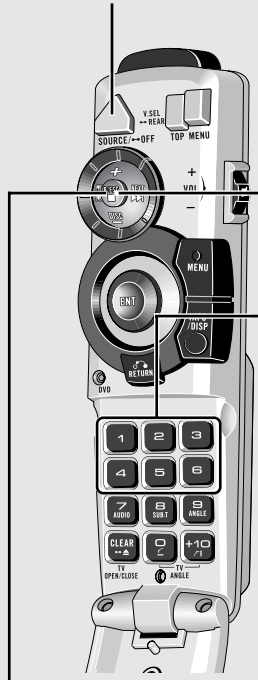
This product's AF function can be switched On and Off. AF should be switched off for normal tuning operations. (See page 26.)

Basics

Selecting the Tuner

Select the "Tuner" as source by pressing the SOURCE button as many times as necessary.





Band

Each click changes the band in the following order:
FM1 → FM2 → FM3 → MW/LW

Preset Tuning

You can memorize broadcast stations in buttons 1 through 6 for easy, one-touch station recall.

Preset station recall	Less than 2 seconds
Broadcast station preset memory	More than 2 seconds

Note:
- Up to 18 FM stations (6 in FM1, FM2 and FM3) and 6 MW/LW stations can be stored in memory.
- You can also use the small joysitck up/down to recall broadcast stations memorized in buttons 1 through 6.

Manual and Seek Tuning

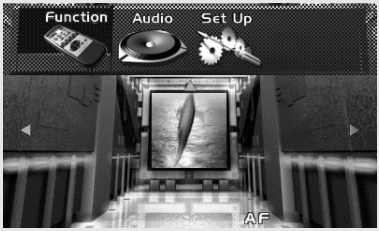
You can select the tuning method by changing the length of time you hold the small joystick left/right.

Manual Tuning (step by step)	Less than 0.5 seconds
Seek Tuning	More than 0.5 seconds

Note:
- If you continue to hold the small joystick left/right for longer than 0.5 seconds, you can skip broadcasting stations. Seek Tuning starts as soon as you release the small joystick.
- Stereo indicator "STEREO" lights when a stereo station is selected.

Operation at the Function Menu Screen

Accessing the Tuner Function Menu



1. **Press the MENU button.**
   The main menu icons whirl down, with "Function" highlighted in green.
2. **Click the joystick.**
   The Tuner Function Menu appears, offering you the following options:

■ FM Tuner Function Menu

Local Seek Tuning
(See page 21.)

Best Stations Memory
(See page 21.)

AF Function
(See page 22.)

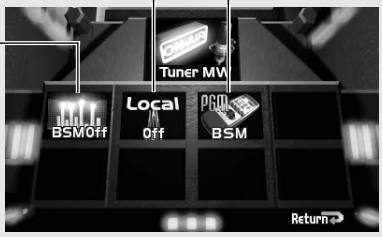
Regional Function
(See page 22.)

TA Function
(See page 22.)

News Program Interruption Setting
(See page 22.)

PGM button
(See page 23.)

■ MW/LW Tuner Function Menu



Local Seek Tuning
(See page 21.)

Best Stations Memory
(See page 21.)

PGM button
(See page 23.)

3. **Select the option by moving the joystick.**
   The selected option is highlighted in green.
4. **Click the joystick.**
   Refer to detailed operation of each function.

Exit from the Tuner Function Menu

- **Press the RETURN button.**

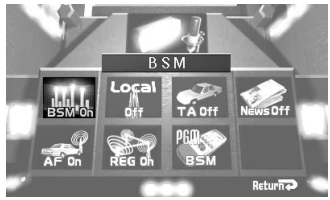
Operating the Each Function

Best Stations Memory (BSM)

The BSM function stores stations in memory automatically.

Select the band before performing operations. (See "Band" on page 19.)

1. **Check to see "BSM" is currently highlighted.**
   If not, select that option by moving the joystick.
   "BSM" is highlighted in green.
2. **Click the joystick.**
   The "BSM Off" display changes to "BSM On".
   The stations with the strongest signals will be stored under buttons 1–6 and in order of their signal strength.



- **To Cancel the process, click the joystick before memorization is complete.**

Local Seek Tuning

When Local is ON, you can only select broadcast stations providing strong reception.

1. **Select "Local" by moving the joystick.**
   "Local" is highlighted in green.
2. **Click the joystick.**
   Each click selects the desired Local Seek Sensitivity in the following order:
   FM: Off → Level 1 → Level 2 → Level 3 → Level 4
   MW/LW: Off → Level 1 → Level 2

Note:

- The "Level 4" setting allows reception of only the strongest stations, while lower settings let you receive progressively weaker stations.

TA Function

You can switch TA (Traffic Announcements) on/off. (See page 28.)

1. **Select “TA” by moving the joystick.**
   “TA” is highlighted in green.
2. **Click the joystick.**
   Each click toggles TA On/Off in an FM band.

News Program Interruption Setting

You can switch automatic reception of PTY code news programs on/off. (See page 31.)

1. **Select “News” by moving the joystick.**
   “News” is highlighted in green.
2. **Click the joystick.**
   Each click toggles NEWS On/Off in an FM band.

AF Function

You can switch AF (Alternative Frequencies search) on/off. (See page 26.)

1. **Select “AF” by moving the joystick.**
   “AF” is highlighted in green.
2. **Click the joystick.**
   Each click toggles AF On/Off while in an FM band.

Regional Function

You can switch Regional function on/off. (See page 27.)

1. **Select “REG” by moving the joystick.**
   “REG” is highlighted in green.
2. **Click the joystick.**
   Each click toggles REG On/Off while in an FM band.

PGM button

You can create a shortcut for BSM or Local Mode.
If you want to control the function of one of these, without needing to go to the Function Menu each time, do the following:

1. **Select “PGM” by moving the joystick.**
   “PGM” is highlighted in green.
2. **Click the joystick.**
   Each click changes the PGM mode in the following order:
   BSM → Local

Press the PGM button in the Tuner source

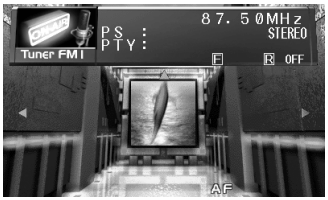
Function name (Display)	Press	Hold for 2 seconds
Best Stations Memory (BSM)	OFF	ON
Local Seek Tuning (Local)	Switch the Local Seek Sensitivity	———

Display the Flip-Down Plate

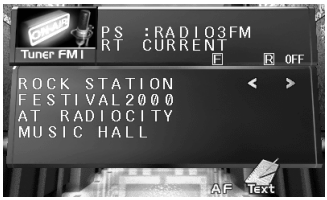
- **Press the DISPLAY button.**
  Each press of the DISPLAY button changes the Source Plate and Flip-Down Plate in the following order:
  Source Plate → Preset Station List → Radio Text Display → PTY Search Plate → No Plate

Examples

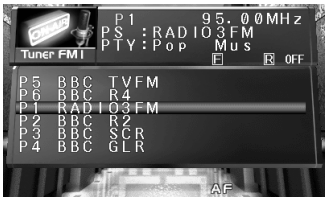
Source Plate



Radio Text Display (FM band)



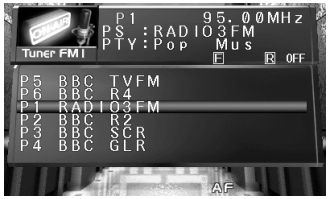
Preset Station List



PTY Search Plate (FM band)

Note:
- When the tuner is tuned to a non-RDS station or the signal is too weak for proper reception of an RDS station, the program service name (PS) disappears, and the current tuned frequency appears.

Recalling Preset Stations by Preset Station List



1. **Press the DISPLAY button for the Preset Station List to appear.**
2. **Select the band by pressing the BAND button.**
3. **Select the preset station by moving the joystick up/down.**
   Selected staion is highlighted.
4. **Click the joystick.**
   Selected station is indicated in yellow and tuned.

Using the RDS Functions

What is RDS?

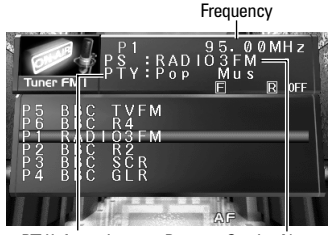
RDS (Radio Data System) is a system for transmitting data along with FM programs. This data, which is inaudible, provides a variety of features such as: program service name, program type display, traffic announcement standby, automatic tuning and program type tuning, intended to aid radio listeners in tuning to a desired station.

Note:
- RDS service may not be provided by all stations.
- RDS functions, like AF (Alternative Frequencies search) and TA (Traffic Announcement standby), are only active when your radio is tuned to RDS stations.

Displaying the Frequency

When you want to know the frequency of the current station, you can switch frequency display ON.

- **Display the Preset Station List by pressing the DISPLAY button.**



Program Service Name

The Program Service Name is the name of networks/stations providing RDS Service.

PTY Information

PTY (Program Type ID code) information for the currently tuned station appears on the display. The information is correlated with the list in the section “PTY List” on page 32.

Note:
- If a PTY code of zero is received from a station, “NONE” will be displayed. This indicates that the station has not defined its program contents.

AF Function

The AF (Alternative Frequencies search) function is used to search for other frequencies in the same network as the currently tuned station. It automatically retunes the receiver to another frequency in the network which is broadcasting a stronger signal when there are problems with reception of the currently tuned station or better reception is possible on a different frequency.

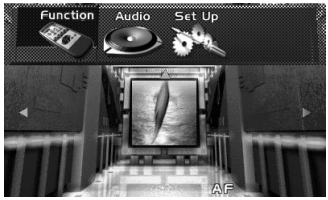
Note:

- AF tunes the receiver only to RDS stations when you use Seek tuning or BSM Auto Memory with the "AF " indicator ON.
- When you recall a preset station, the tuner may update the preset station with a new frequency from the station's AF list. (This is only available when using presets on the FM1 and FM2 bands.) No preset number appears on the display if the RDS data for the station received differs from that for the originally stored station.
- Sound may be temporarily interrupted by another program during an AF frequency search.
- When the tuner is tuned to a non-RDS station, the AF Car icon disappears.
- AF can be switched ON or OFF independently for each FM band.
- The AF Car icon lights when the tuner is tuned to an RDS station with AF list.

Activating/Deactivating the AF Function

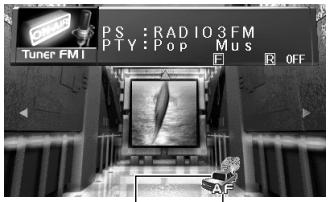
AF is set to ON by default.

1. **Press the MENU button.**
   The main menu icons whirl down, with "Function" highlighted in green.
2. **Click the joystick.**
   The Tuner Function Menu appears.



3. **Select "AF" by moving the joystick.**
   "AF" is highlighted in green.
4. **Activate or deactivate AF while in an FM band by clicking the joystick.**
   Each click toggles AF On/Off.

5. **Press the RETURN button.**
   You go back to the Center Room.



PI Seek Function

The tuner searches for another frequency broadcasting the same programming. “PI SEEK” appears on the display and the radio volume is muted during a PI Seek. The muting is discontinued after completion of the PI Seek, whether or not the PI seek has succeeded. If the PI Seek is unsuccessful, the tuner returns to the previous frequency.

PI Seek

If the tuner fails to locate a suitable alternative frequency or if the broadcasting signal is too weak for proper reception, the PI Seek will automatically start.

Auto PI Seek (for preset station)

When preset stations cannot be recalled, as when traveling long distances, this product can be set to perform PI Seek also during preset recall.
The default setting for Auto PI Seek is OFF.

Note:
- Refer to “Changing the Initial Settings” for details on how to switch Auto PI Seek ON/OFF.

Regional Function

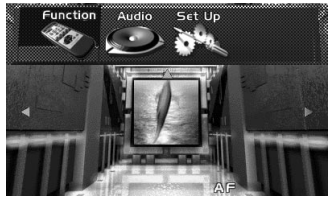
When AF is used to retune the tuner automatically, REG (regional) limits the selection to stations broadcasting regional programs.

Note:
- Regional programming and regional networks are organized differently depending on the country (i.e., they may change according to the hour, state or broadcast area).
- The preset number may disappear on the display if the tuner tunes in a regional station which differs from the originally set station.
- REG can be switched ON or OFF independently for each FM band.

Activating/Deactivating the REG Function

The REG function is set to ON by default.

1. **Press the MENU button.**
   The main menu icons whirl down, with “Function” highlighted in green.
2. **Click the joystick.**
   The Tuner Function Menu appears.



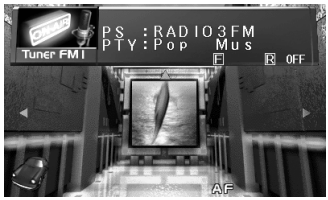
3. **Select “REG” by moving the joystick.**
   “REG” is highlighted in green.
4. **Activate or deactivate REG while in an FM band by clicking the joystick.**
   Each click toggles REG On/Off.
5. **Press the RETURN button.**
   You go back to the Center Room.

TA Function

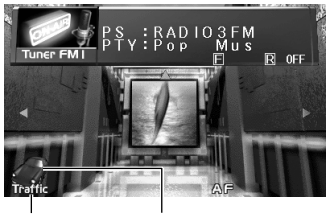
The TA (Traffic Announcement standby) function lets you receive traffic announcements automatically, no matter what source you are listening to. The TA function can be activated for either a TP station (a station that broadcasts traffic information) or an EON TP station (a station carrying information which cross-references TP stations).

Activating/Deactivating the TA Function

1. **Tune in a TP or EON TP station by moving the small joystick left/right.**
   The Car icon lights when the tuner is tuned to a TP station or an EON TP station.



2. **Activate the TA function by pressing the TA button.**
   The "Traffic" indicator lights, indicating that the tuner is waiting for traffic announcements.
   Repeat the preceding operation when no traffic announcement is being received to deactivate the TA function.



Note:

- You can also switch the TA Function ON/OFF in the Function Menu.
- The system switches back to the original source following traffic announcement reception.
- The TA function can be activated from sources other than tuner if the tuner was last set to the FM band but not if it was last set to the MW/LW band.
- If the tuner was last set to FM, turning on the TA function lets you operate other tuning functions while listening to sources other than tuner.
- Only TP or EON TP stations are tuned in during the Seek Tuning mode when the "Traffic" indicator is ON.
- Only TP or EON TP stations are stored by BSM when the "Traffic" indicator is ON.

Canceling Traffic Announcements

- **Press the TA button while a traffic announcement is being received to cancel the announcement and return to the original source.**
  The announcement is canceled but the tuner remains in the TA mode until the TA button is pressed again.

Adjusting the TA Volume

When a traffic announcement begins, the volume adjusts automatically to a preset level to enable you to hear the announcement clearly.

- **Set the volume by adjusting it by pressing VOLUME during reception of a traffic announcement.**
  The newly set volume is stored in memory and recalled for subsequent traffic announcements.

TP Alarm Function

About 30 seconds after the Car icon indicator disappears due to a weak signal, a 5 second beep sounds to remind you to select another TP or EON TP station.

- **If you are listening to the tuner, tune in another TP station or EON TP station.**
  In sources other than tuner, the tuner automatically seeks out the TP station with the strongest signal in the current area 10 (or 30)* seconds after the Car icon disappears from the display.

*** Time taken before Seek begins.**

TA function ON	10 seconds
TA, AF functions ON	30 seconds

PTY Function

With Wide and Narrow classification of program type, the PTY function provides two ways to select stations by the type of program being broadcast (PTY Search). It also provides automatic tuning to emergency broadcasts (PTY Alarm).

Searching the PTY

Note:
- There's no need to perform PTY Search settings again if they have previously been set. After displaying the PTY Search Plate in step 1, just perform PTY Search in Step 6.

1. **Display the PTY Search Plate by pressing the PTY button.**
   Return to the previous display by pressing PTY button again.
2. **Highlight "WIDE" or "NARROW" by moving the joystick right.**

3. **Click the joystick.**
   Each click changes the PTY Search method in the following order:
   WIDE → NARROW
4. **Highlight PTY picture by moving the joystick left.**

5. **Select one from among the PTY by moving the joystick up/down.**
   You can select "NARROW" classification of program type within the selected "WIDE" classification.

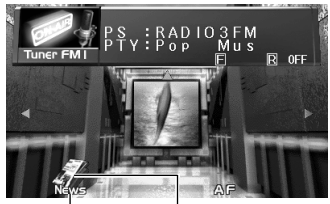
6. **Click the joystick.**
   The tuner searches for a station broadcasting the desired PTY.

Note:
- You can also switch to the PTY Search Plate by pressing the DISPLAY button. (Refer to "Display the Flip-Down Plate" on page 24.)
- The program of some stations may differ from that indicated by the transmitted PTY.
- If no station broadcasting the selected programming type is found, "NOT FOUND" is displayed for about 2 seconds, and the tuner returns to the original station.

News Program Interruption Setting

You can switch automatic reception of PTY code news programs ON/OFF. When a received news program ends, reception of the previous program resumes.

- **Set interruption to ON/OFF by pressing the TA button for 2 seconds.**



"News" Newspaper icon

Note:

- You can also switch the News Program Interruption Setting ON/OFF in the Function Menu.
- The newspaper icon lights when the tuner is tuned to a news program.

PTY Alarm

PTY Alarm is a special PTY code for announcements regarding emergencies such as natural disasters. When the tuner receives the radio alarm code, "ALARM" appears on the display and the volume adjusts to the TA volume. When the station stops broadcasting the emergency announcement, the system returns to the previous source.

Note:

- The system switches back to the original source following emergency announcement reception.

Canceling Announcements

- **Press the TA button during announcement reception to cancel the announcement and return to the previous source.**

PTY List

Wide	Narrow	Details
News&Inf	News	News.
	Affairs	Current affairs.
	Info	General information and advice.
	Sport	Sports programs.
	Weather	Weather reports/Meteorological information.
	Finance	Stock market reports, commerce, trading, etc.
Popular	Pop Mus	Popular music.
	Rock Mus	Contemporary modern music.
	Easy Mus	Easy listening music.
	Oth Mus	Other types of music, which can't be categorized.
	Jazz	Jazz music based programs.
	Country	Country music based programs.
	Nat Mus	National music based programs.
	Oldies	Oldies music, 'Golden age' based programs.
	Folk Mus	Folk music based programs.
Classics	L. Class	Light classical music.
	Classic	Serious classical music.
Others	Educate	Educational programs.
	Drama	All radio plays and serials.
	Culture	Programs concerned with any aspect of national or regional culture.
	Science	Programs about nature, science and technology.
	Varied	Light entertainment programs.
	Children	Children's programs.
	Social	Social affairs programs.
	Religion	Religion affairs programs or services.
	Phone In	Phone in based programs.
	Touring	Travel programs, not for announcements about traffic problem.
	Leisure	Programs about hobbies and recreational activities.
	Document	Documentary programs.

Radio Text

This tuner can display Radio Text data transmitted by RDS stations, such as station information, the name of the currently broadcast song and the name of the artist.

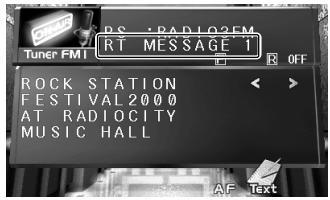
Note:
- When a Radio Text is received, the “Text” indicator and Note icon light.
- The tuner automatically memorizes the three latest Radio Text broadcasts received, replacing text from the least recent reception with new text when it is received.
- You can store data from up to six Radio Text transmissions in buttons 1–6.

Radio Text Display

1. **Display the Radio Text Display by pressing the DISPLAY button.**

Note:
- When no Radio Text is currently being received, “NO TEXT” is displayed.

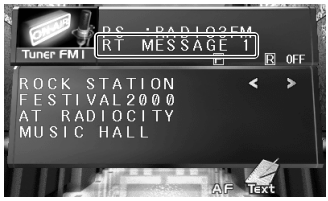
2. **Select either “ < ” or “ > ” by moving the joystick left/right.**
3. **Click the joystick.**
   Each click switches the three Radio Text data display left or right.



Note:
- If there is no Radio Text data stored in the tuner, the joystick does not operate.

Storing Radio Text in Memory

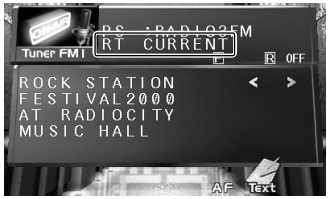
1. **Perform "Radio Text Display" steps 1–3, and then select the Radio Text you want to store in memory.**



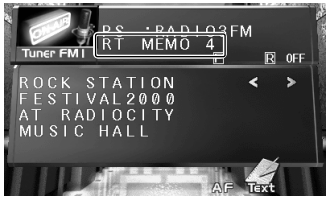
2. **Press one of buttons 1–6 for 2 seconds to store the desired Radio Text. (e.g. Press button 4 for 2 seconds.)**
   The Radio Text is stored in memory under the selected button.

Recalling Preset Radio Text

1. **Display the Radio Text Display by pressing the DISPLAY button.**



2. **Press one of buttons 1–6 to recall a Radio Text preset under that button. (e.g. Press button 4.)**



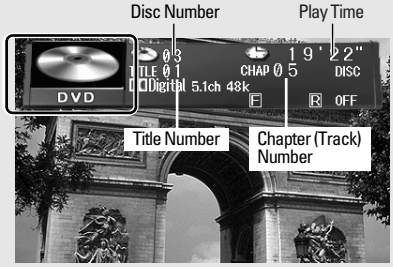
Multi-DVD Player

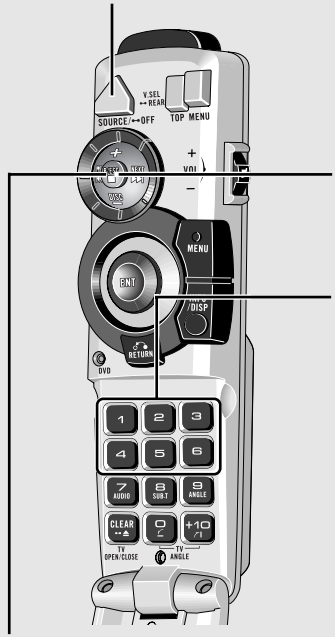
Basics

Selecting the Multi-DVD

Select the "DVD" as source by pressing the SOURCE button as many times as necessary.

The player starts playing automatically.





Disc Search

You can select discs by moving the small joystick up/down.

Disc Number Search

You can select discs directly with the 1 to 6 buttons. Just press the number corresponding to the disc you want to listen to.

Chapter (Track) Search and Fast Forward/Reverse

You can select between Chapter (Track) Search or Fast Forward/Reverse by changing the length of time you hold the small joystick left/right.

Chapter (Track) Search	Less than 0.5 seconds
Fast Forward/Reverse	Continue pressing

Note:

- Although DVD and Video CD images cannot be seen on screen while driving, all functions of the Multi-DVD player can be operated. (Audio can be heard.)
- You can use Multi-DVD player to play DVDs, Video CDs, and CDs. When the source is switched to Multi-DVD player, player plays the disc selected at that time.
- This unit may not be available to operate the Multi-DVD player momentarily depending on discs and the playing status.
- You can operate the Multi-DVD player by using this product's remote control when you set the operation mode switch to "DVD". (Refer to the Multi-DVD player's manual.)

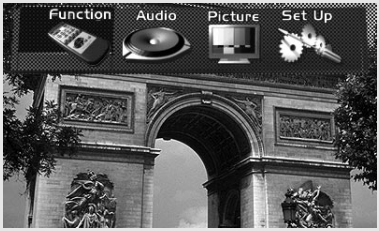
Operation at the Function Menu Screen (DVD, Video CD)

With Multi-DVD player, the Function Menu differs for playing DVDs, Video CDs and CDs. When playing CDs, refer to "Operation at the Function Menu Screen (CD)". (See page 39.)

Accessing the DVD Function Menu (DVD, Video CD)

Begin play of a disc before selecting options from the DVD Function Menu.

1. **Press the MENU button.**
   The main menu icons whirl down, with "Function" highlighted in green.
2. **Click the joystick.**
   The DVD Function Menu appears, offering you the following options:

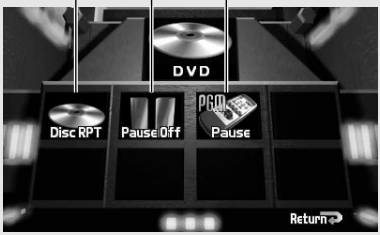


■ **DVD Function Menu (DVD, Video CD)**

Pause
(See page 37.)

Repeat Play
(See page 37.)

PGM button
(See page 38.)



3. **Select the option by moving the joystick.**
   The selected option is highlighted in green.
4. **Click the joystick.**
   Refer to detailed operation of each function.

Exit from the DVD Function Menu (DVD, Video CD)

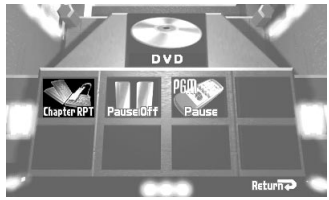
- **Press the RETURN button.**

Operating Each Function

Repeat Play

You can select the desired repeat mode play range from the chapter (track), title or disc currently in play.

1. **Check to see "RPT" is currently highlighted.**
   If not, select that option by moving the joystick.
   "RPT" is highlighted in green.
2. **Click the joystick.**
   Each click changes repeat range in the following order:



Source plate

Repeat range

■ DVD

Disc RPT → Chapter RPT → Title RPT

Display	Repeat range
Chapter RPT	Chapter Repeat
Title RPT	Title Repeat
Disc RPT	Disc Repeat

■ Video CD

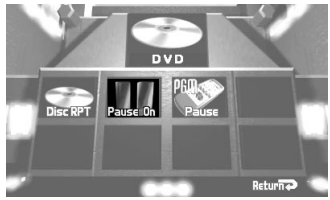
Disc RPT → Track RPT

Display	Repeat range
Track RPT	Track Repeat
Disc RPT	Disc Repeat

Pause

Pause pauses the currently playing track.

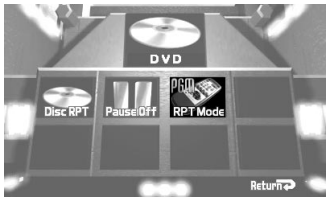
1. **Select "Pause" by moving the joystick.**
   "Pause" is highlighted in green.
2. **Click the joystick.**
   Each click toggles the Pause On/Off.



PGM button

You can create a shortcut for Pause or Repeat Play Mode.
If you want to control the function of one of these, without needing to go to the Function Menu each time, do the following:

1. **Select “PGM” by moving the joystick.**
   “PGM” is highlighted in green.
2. **Click the joystick.**
   Each click changes the PGM mode in the following order:
   Pause → RPT Mode



Press the PGM button when playing a DVD or Video CD in the Multi-DVD source

Function name (Display)	Press	Hold for 2 seconds
Pause (Pause)	ON/OFF	———
Repeat play (RPT Mode)	Switch repeat range	———

Operation at the Function Menu Screen (CD)

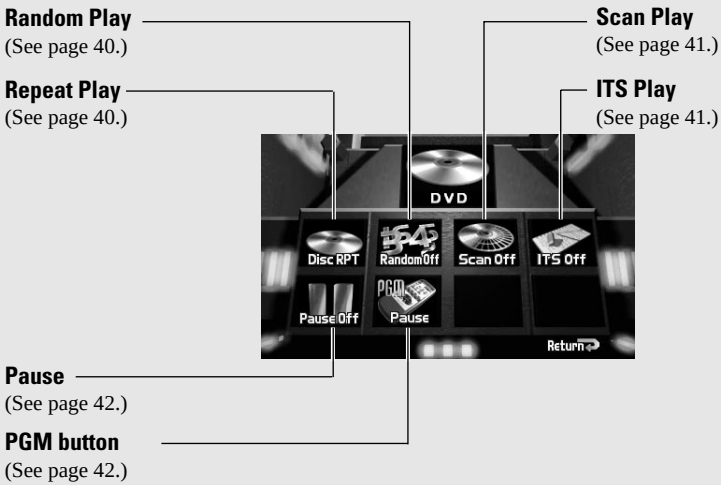
With Multi-DVD player, the Function Menu differs for playing DVDs, Video CDs and CDs. When playing DVDs and Video CDs, refer to "Operation at the Function Menu Screen (DVD, Video CD)". (See page 36.)

Accessing the DVD Function Menu (CD)

Begin play of a disc before selecting options from the DVD Function Menu.

1. **Press the MENU button.**
   The main menu icons whirl down, with "Function" highlighted in green.
2. **Click the joystick.**
   The DVD Function Menu appears, offering you the following options:

■ **DVD Function Menu (CD)**



3. **Select the option by moving the joystick.**
   The selected option is highlighted in green.
4. **Click the joystick.**
   Refer to detailed operation of each function.

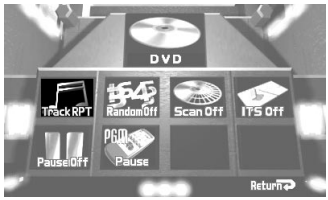
Exit from the DVD Function Menu (CD)

- **Press the RETURN button.**

Repeat Play

Repeat Play plays the same disc and track repeatedly.

1. **Check to see "RPT" is currently highlighted.**
   If not, select that option by moving the joystick.
   "RPT" is highlighted in green.
2. **Click the joystick.**
   Each click changes the Repeat mode in the following order:
   Disc RPT → Track RPT



Source plate

Repeat range

Display	Repeat range
Track RPT	Track repeat
Disc RPT	Disc repeat

Note:
- If you perform Track Search, Repeat Play is automatically canceled.

Random Play

Random Play plays the tracks on a CD in random order for variety.

1. **Select "Random" by moving the joystick.**
   "Random" is highlighted in green.
2. **Click the joystick.**
   Each click toggles the Random On/Off.

Source plate

Random

Scan Play

Scan Play plays the first 10 seconds or so of each track on a CD in succession.

1. **Select “Scan” by moving the joystick.**
   “Scan” is highlighted in green.
2. **Switch the Scan Play On by clicking the joystick.**
3. **When you find the desired track, cancel the Scan Play by clicking the joystick.**
   If the Function Menu has been canceled automatically, select the “Scan” in the Function Menu again.

Source plate

Scan

Note:

- Scan Play is canceled automatically after all the tracks on a disc have been scanned.

ITS Play

ITS Play plays the memorized track. (Refer to “ITS Programming (ITS)” on page 53.)

1. **Select “ITS” by moving the joystick.**
   “ITS” is highlighted in green.
2. **Click the joystick.**
   Each click toggles the ITS Play On/Off.

Source plate

ITS Play

Note:

- If no track in the current range is programmed for ITS Play, “Empty” is displayed.
- For Multi-DVD, ITS play can be done only on the CD in play.

Pause

Pause pauses the currently playing track.

1. **Select “Pause” by moving the joystick.**
   “Pause” is highlighted in green.
2. **Click the joystick.**
   Each click toggles the Pause On/Off.

PGM button

You can create a shortcut for Pause, RPT, Random or ITS Mode.
If you want to control the function of one of these, without needing to go to the Function Menu each time, do the following:

1. **Select “PGM” by moving the joystick.**
   “PGM” is highlighted in green.
2. **Click the joystick.**
   Each click changes the PGM mode in the following order:
   Pause → RPT Mode → Random → ITS

Press the PGM button when playing a CD in the Multi-DVD source

Function name (Display)	Press	Hold for 2 seconds
Pause (Pause)	ON/OFF	———
Repeat play (RPT Mode)	Switch repeat range	———
Random play (Random)	ON/OFF	———
ITS play (ITS)	ON/OFF	———

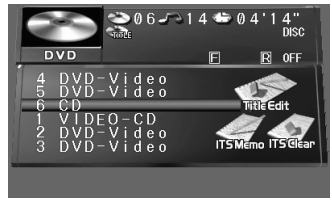
Display the Flip-Down Plate

- **Press the DISPLAY button.**
  Each press of the DISPLAY button changes the Source Plate and Flip-Down Plate in the following order:
  Source Plate → Disc Title List → No Plate

Examples

Source Plate (e.g. for DVDs)

Disc Title List (e.g. for CDs)



Note:
- The Disc Title List varies by the type of disc: DVD, Video CD and CD.
  * With DVD, “Title Edit”, “ITS MEMO” and “ITS Clear” are not displayed.
  * With Video CD, “ITS MEMO” and “ITS Clear” are not displayed.

Disc Title Input for CD and Video CD

You can input Titles up to 10 letters long. Using this function lets you easily search for and select a desired disc for play. (You can store Disc Title data discs in memory.)

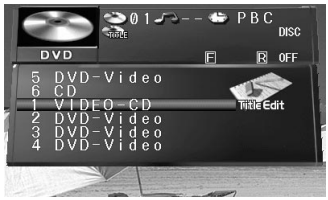
Note:
- For detailed operation, refer to the operation of “Disc Title Input” on page 51.

Selecting Discs by Disc Title List

You can select a disc from Disc Title List you want to listen to and play.

1. **Press the DISPLAY button for the Flip-Down Plate to appear.**

2. **Select the desired disc title by moving the joystick up/down.**
   "CD" or "VIDEO-CD" is displayed for disc whose titles have not been input.
3. **Click the joystick.**
   The selected disc is indicated in yellow and begins play.



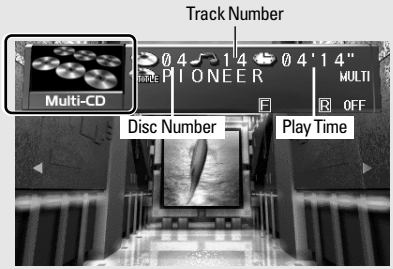
Multi-CD Player

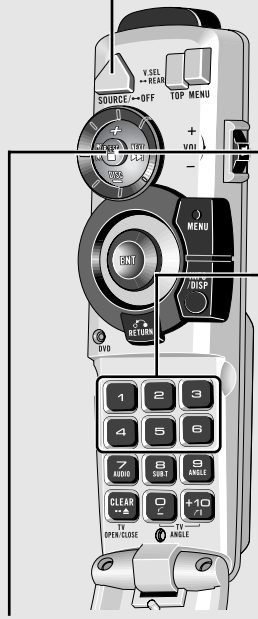
Basics

Selecting the Multi-CD Player

Select the "Multi-CD" as source by pressing the SOURCE button as many times as necessary.

The player starts playing automatically.





Disc Search

You can select discs by moving the small joystick up/down.

Disc Number Search (for 6-Disc, 12-Disc types)

You can select discs directly with the 1 to 6 buttons. Just press the number corresponding to the disc you want to listen to.

Note:

- When a 12-Disc Multi-CD Player is connected and you want to select disc 7 to 12, press the 1 to 6 buttons for 2 seconds.

Track Search and Fast Forward/Reverse

You can select between Track Search or Fast Forward/Reverse by changing the length of time you hold the small joystick left/right.

Track Search	Less than 0.5 seconds
Fast Forward/Reverse	Continue pressing

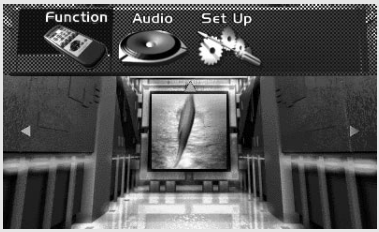
Note:

- The Multi-CD player may perform a preparatory operation, such as verifying the presence of a disc or reading disc information, when the power is turned ON or a new disc is selected for playback. "READY" is displayed.
- If the Multi-CD player cannot operate properly, an error message such as "ERROR-14" is displayed. Refer to the Multi-CD player owner's manual.
- If there are no discs in the Multi-CD player magazine, "NO DISC" is displayed.

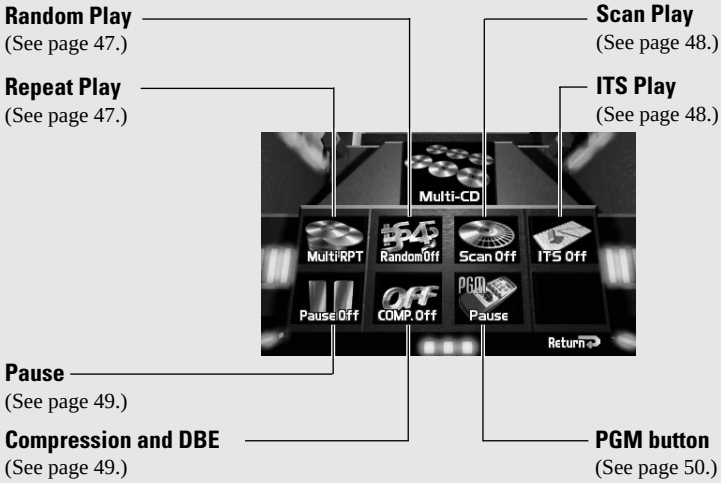
Operation at the Function Menu Screen

Accessing the Multi-CD Function Menu

1. **Press the MENU button.**
   The main menu icons whirl down, with "Function" highlighted in green.
2. **Click the joystick.**
   The Multi-CD Function Menu appears offering you the following options:



■ **Multi-CD Function Menu**



3. **Select the option by moving the joystick.**
   The selected option is highlighted in green.
4. **Click the joystick.**
   Refer to detailed operation of each function.

Exit from the Multi-CD Function Menu

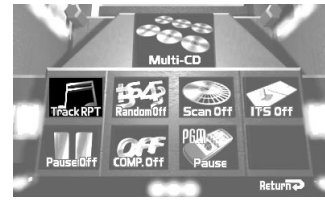
- **Press the RETURN button.**

Operating Each Function

Repeat Play

There are three repeat play ranges: One-track Repeat, Disc Repeat and Multi-CD player Repeat. Default repeat play range is Multi-CD player Repeat.

1. **Check to see "RPT" is currently highlighted.**
   If not, select that option by moving the joystick.
   "RPT" is highlighted in green.
2. **Click the joystick.**
   Each click changes the Repeat mode in the following order:
   Multi RPT → Track RPT → Disc RPT



Source plate

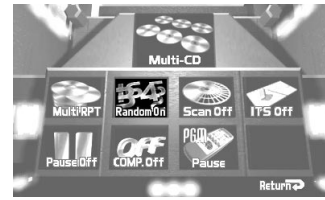
Repeat range

Display	Repeat range
Track RPT	One-track Repeat
Disc RPT	Disc Repeat
Multi RPT	Multi-CD player Repeat

Random Play

Tracks are played at random within the selected repeat play range as explained in "Repeat Play" above.

1. **Select "Random" by moving the joystick.**
   "Random" is highlighted in green.
2. **Click the joystick.**
   Each click toggles Random play On/Off.
   After selecting the desired repeat play range from those referred to in "Repeat Play" above, switch Multi-CD Player Random Play ON.



Source plate

Random Play range

Display	Play range
DISC RDM	Disc Repeat
MULTI RDM	Multi-CD player Repeat

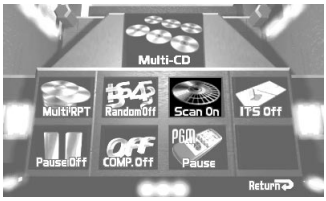
Note:

- One-track Repeat changes to the Disc Repeat when you switch the Random Play ON.

Scan Play

In the Disc Repeat, the beginning of each track on the selected disc is scanned for about 10 seconds. In the Multi-CD player Repeat, the beginning of the first track on each disc is scanned for about 10 seconds.

1. **Select “Scan” by moving the joystick.**
   “Scan” is highlighted in green.
2. **Switch the Scan Play ON by clicking the joystick.**
   After selecting the desired repeat play range from those referred to in “Repeat Play” on page 47, switch Multi-CD Player Scan Play ON.
3. **When you find the desired track (or disc), cancel the Scan Play by clicking the joystick.**
   If the Function Menu has been canceled automatically, select the “Scan” in the Function Menu again.



Source plate

Scan Play range

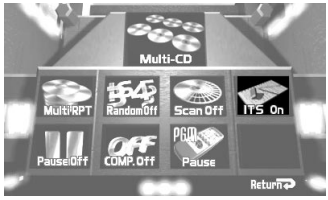
Display	Play range
DISC SCAN	Disc Repeat
MULTI SCAN	Multi-CD player Repeat

Note:
- Scan Play is canceled automatically after all the tracks or discs have been scanned.
- One-track Repeat changes to the Disc Repeat when you switch the Scan Play ON.

ITS Play

ITS Play plays the memorized track. (Refer to “ITS Programming (ITS)” on page 53.) ITS play of tracks is performed within the play range explained in the “Repeat Play” section.

1. **Select “ITS” by moving the joystick.**
   “ITS” is highlighted in green.
2. **Click the joystick.**
   Each click toggles ITS play On/Off.
   After selecting the desired repeat play range from those referred to in “Repeat Play” on page 47, switch ITS Play ON.



Source plate

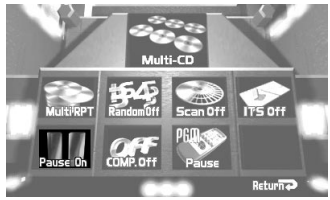
ITS Play

Note:
- If no track in the current range is programmed for ITS Play, “Empty” is displayed.

Pause

Pause pauses the currently playing track.

1. **Select “Pause” by moving the joystick.**
   “Pause” is highlighted in green.
2. **Click the joystick.**
   Each click toggles Pause On/Off.



Compression and DBE

Using the COMP (Compression) and DBE (Dynamic Bass Emphasis) functions enables Multi-CD player sound quality adjustment. Each of the functions enables two-step adjustment.

■ COMP

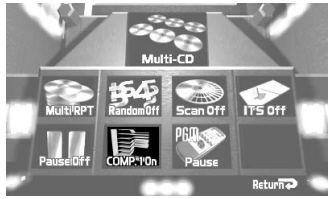
The COMP (Compression) function adjusts imbalances between loud and subdued sounds at higher volumes.

■ DBE

DBE (Dynamic Bass Emphasis) boosts bass levels to give a fuller sound.

COMP/DBE ON/OFF Switching

1. **Select “COMP.” by moving the joystick.**
   “COMP.” is highlighted in green.
2. **Click the joystick.**
   Each click changes the mode in the following order:
   COMP. Off → COMP. 1 → COMP. 2 → COMP. Off → D.B.E. 1 → D.B.E. 2



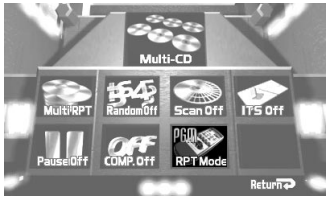
Note:

- You can use these functions with a Multi-CD player that has them. If the player does not feature the COMP/DBE functions, “No COMP” is displayed in “COMP.”.

PGM button

You can create a shortcut for Pause, RPT, Random or ITS mode.
If you want to control the function of one of these, without needing to go to the Function Menu each time, do the following:

1. **Select “PGM” by moving the joystick.**
   “PGM” is highlighted in green.
2. **Click the joystick.**
   Each click changes the PGM mode in the following order:
   Pause → RPT Mode→ Random → ITS



Press the PGM button in the Multi-CD source

Function name (Display)	Press	Hold for 2 seconds
Pause (Pause)	ON/OFF	———
Repeat play (RPT Mode)	Switch repeat range	———
Random play (Random)	ON/OFF	———
ITS play (ITS)	ON/OFF	———

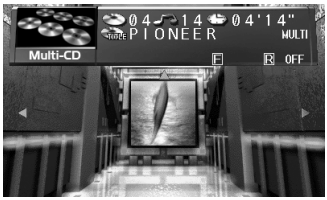
Display the Flip-Down Plate

You can display input titles and titles recorded on CD TEXT compatible CDs.
For CD TEXT, up to 12 letters of a title can be seen at a time. If the title is longer than 12 letters, the remaining letters can be viewed by scrolling.

- **Press the DISPLAY button.**
  Each press of the DISPLAY button changes the Source Plate and Flip-Down Plate in the following order:
  Source Plate → Disc Title List → No Plate

Examples

Source Plate



Disc Title List

Note:
- If a disc title has not been input, “NO TITLE” is displayed.
- For numbers that do not have a disc, no title is shown.

Disc Title Input

You can input Titles up to 10 letters long for up to 100 discs. Using this function lets you easily search for and select a desired disc for play. (You can store ITS program and Disc Title data for up to 100 discs in memory.)

Note:
- When playing a CD TEXT disc on a CD TEXT compatible Multi-CD player, you cannot switch to this mode.
- A CD TEXT disc is a CD featuring recorded text information such as Disc Title, Artist Name and Track Title.
- Don't click the joystick to confirm your entry of title. Doing so cancels the title and you must start from the beginning.

1. **Press the DISPLAY button for the Flip-Down Plate to appear.**
2. **Play the disc you wish to input the disc title.**
3. **Select "Title Edit" by moving the joystick.**
   "Title Edit" is highlighted in green.

4. **Click the joystick.**
   "Title Edit" is highlighted in yellow and the display changes to show the left most character position highlighted.
5. **Select the desired character type by pressing the button 1.**
   Each press of button 1 changes the character type in the following order:

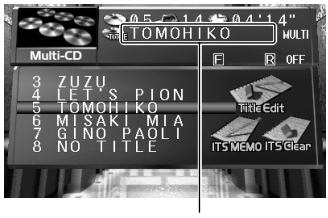
   Alphabet (Upper case), Numbers and Symbols → Alphabet (Lower case) → European letters, such as those with accents (e.g. á, à, ä, ç)

Note:
- You can select to input Numbers and Symbols by pressing button 2.

6. **Select letters, numbers and symbols by moving the joystick up/down.**
   To insert a space, select the cursor "_".

7. **Move the box left and right by moving the joystick left/right.**

8. **When you have completed title input, move to the 10th letter position, then memorize by moving the joystick right.**



Note:
- Titles remain in memory, even after the disc has been removed from the magazine, and are recalled when the disc is reinserted.
- After the titles for 100 discs have been entered, data for a new disc will overwrite the data for the disc that has not been played back for the longest time.

Getting Text Displayed (for CD TEXT compatible type)

You can use these functions when playing a CD TEXT disc on a CD TEXT compatible Multi-CD player.

Title Display Switching

- **Select the desired title display by pressing the DISPLAY button.**
  Refer to “Information Screen” on page 13.

Note:
- If certain text information is not recorded on a CD TEXT disc, “NO TITLE” is displayed.

Title Scroll

This product displays the first 12 letters only of Disc Title, Artist Name and Track Title. With text longer than 12 letters, you can see the rest of the text by scrolling.

- **Scroll the upper title display by pressing the DISPLAY button for 2 seconds.**

Selecting Discs by Disc Title List

Follow the procedures below to play a disc for which you have input the title in a Multi-CD player or a CD TEXT disc on a CD TEXT compatible Multi-CD player.

1. **Press the DISPLAY button for the Flip-Down Plate to appear.**
2. **Select the desired disc title by moving the joystick up/down.**
   "NO TITLE" is displayed for disc whose titles have not been input.
3. **Click the joystick.**
   The selected disc is indicated in yellow and begins play.

ITS (Instant Track Selection)

The ITS function allows you to search for the track you wish to play. You can use ITS to program automatic playback of up to 24 tracks per disc from up to 100 discs. (You can store ITS program and Disc Title data for up to 100 discs in memory.)

ITS Programming (ITS)

Programmed tracks are played within the selected repeat play range in the "Repeat Play" on page 47.

1. **Press the DISPLAY button for the Flip-Down Plate to appear.**
2. **Play the track you wish to program.**
3. **Select "ITS MEMO" by moving the joystick.**
   "ITS MEMO" is highlighted in green.
4. **Click the joystick.**
   The currently playing track is stored.

Note:

- After 100 discs have been programmed, data for a new disc will overwrite the data for the disc that has not been played back for the longest time.

Erase a Track Program

1. **Press the DISPLAY button for the Flip-Down Plate to appear.**
2. **Select the track you wish to erase, during ITS Play.**
3. **Select "ITS Clear" by moving the joystick.**
   "ITS Clear" is highlighted in green.
4. **Click the joystick.**
   Erase the track program and playback of the next ITS-programmed track begins. If there are no more programmed tracks in the current range, "ITS EMPTY" is displayed and normal play resumes.

Erase a Disc Program

1. **Press the DISPLAY button for the Flip-Down Plate to appear.**
2. **Select the disc you wish to erase, while the disc is playing.**
3. **Select "ITS Clear" by moving the joystick.**
   "ITS Clear" is highlighted in green.
4. **Click the joystick.**
   Erase the disc program.

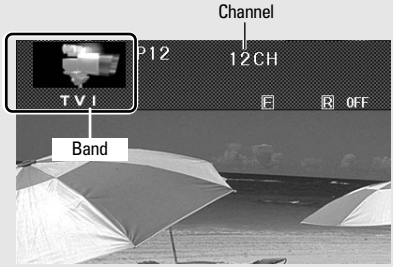
TV Tuner

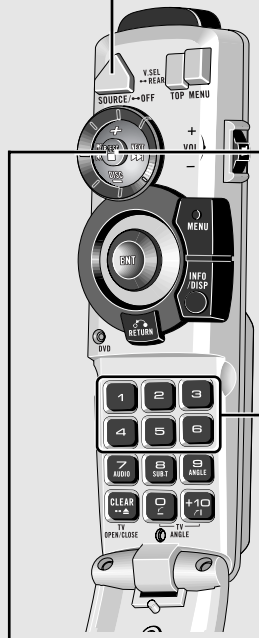
The following explains how to use this product to control TV tuners. For details of TV tuner-specific operations/features, see your TV tuner's manual.

Basics

Selecting the TV Tuner

Select the "TV Tuner" as source by pressing the SOURCE button as many times as necessary.





Band

Each click changes the band in the following order:
TV1 → TV2

Preset Tuning

You can recall memorized stations by moving the small joystick up/down.

Preset Memory and Direct Recall

You can memorize broadcast stations in buttons 1 through 6 for easy, one-touch station recall.

Direct recall	Less than 2 seconds
Broadcast station preset memory	More than 2 seconds

Note:
- Up to 12 stations (6 in TV1 and TV2) can be stored in memory.
- You cannot memorize in Preset Channels 7–12 with this function.

Manual and Seek Tuning

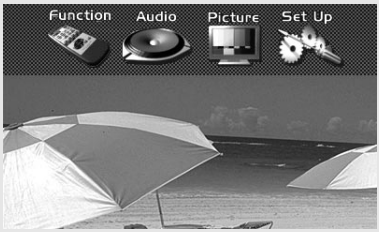
You can select the tuning method by changing the length of time you hold the small joystick left/right.

Manual Tuning (step by step)	Less than 0.5 seconds
Seek Tuning	More than 0.5 seconds

Note:
- If you continue to hold the small joystick left/right for longer than 0.5 seconds, you can skip broadcasting stations. Seek Tuning starts as soon as you release the small joystick.

Operation at the Function Menu Screen

Accessing the TV Tuner Function Menu



1. **Press the MENU button.**
   The main menu icons whirl down, with "Function" highlighted in green.

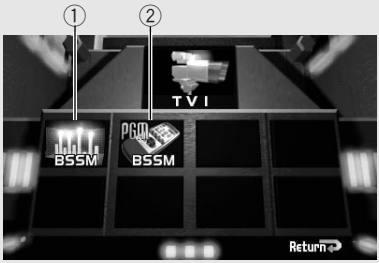
2. **Click the joystick.**
   The TV Tuner Function Menu appears, offering you the following options:

3. **Select the option by moving the joystick and click the joystick.**
   The selected option is highlighted in green.

■ TV Tuner Function Menu

① Best Station Sequential Memory (BSSM)
Switch the BSSM ON by clicking the joystick.

② PGM button
For TV, you cannot memorize functions other than BSSM in the PGM button.



Exit from the TV Tuner Function Menu

- **Press the RETURN button.**

CD Player

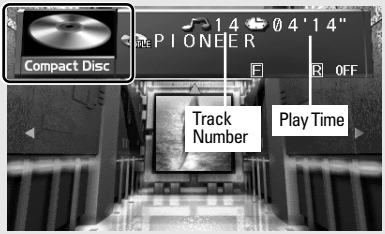
The following explains how to use this product to control CD players. For details of CD player-specific operations/features, see your CD player's manual.

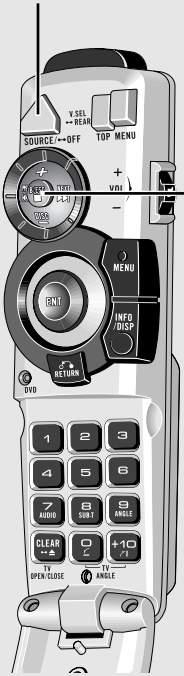
Basics

Selecting the CD Player

Select the "Compact Disc" as source by pressing the SOURCE button as many times as necessary.

The player starts playing automatically.





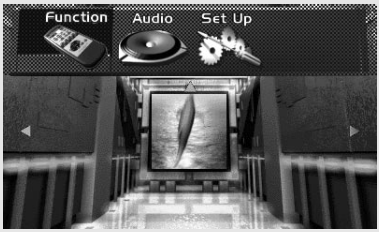
Track Search and Fast Forward/Reverse

You can select between Track Search or Fast Forward/Reverse by changing the length of time you hold the small joystick left/right.

Track Search	Less than 0.5 seconds
Fast Forward/Reverse	Continue pressing

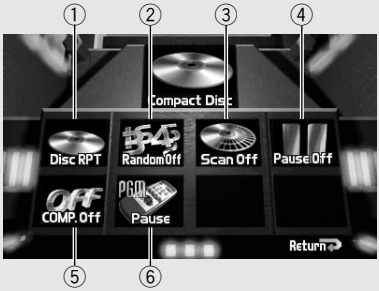
Operation at the Function Menu Screen

Accessing the CD Function Menu



1. **Press the MENU button.**
   The main menu icons whirl down,with "Function" highlighted in green.
2. **Click the joystick.**
   The CD Function Menu appears, offering you the following options:
3. **Select the option by moving the joystick and click the joystick.**
   The selected option is highlighted in green.

■ CD Function Menu



① **Repeat Play**
Each click changes the Repeat mode in the following order:
Disc RPT (Disc Repeat) → Track RPT (Track Repeat)

② **Random Play**
Each click toggles Random play On/Off.

③ **Scan Play**
Each click toggles Scan play On/Off.

④ **Pause**
Each click toggles Pause On/Off.

⑤ **Compression and DBE**
Each click changes the COMP in the following order:
COMP. Off → COMP. 1 → COMP. 2 → COMP. Off → D.B.E. 1 → D.B.E. 2

⑥ **PGM button**
Each click changes the PGM mode in the following order:
Pause → RPT Mode → Random

Disc Title Input

For detail operation to enter titles, refer to "Disc Title Input" on page 51.

Exit from the CD Player Function Menu

- **Press the RETURN button.**

Multi-MD Player

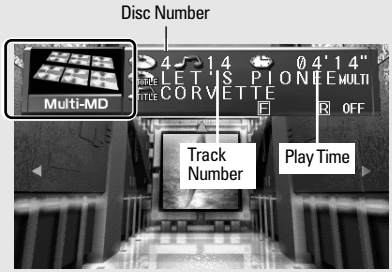
The following explains how to use this product to control Multi-MD players. For details of Multi-MD player-specific operations/features, see your Multi-MD player's manual.

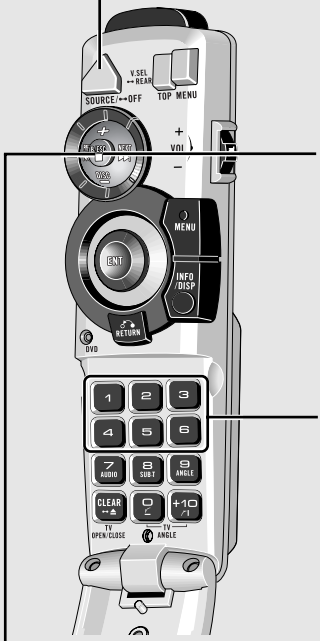
Basics

Selecting the Multi-MD Player

Select the "Multi-MD" as source by pressing the SOURCE button as many times as necessary.

The player starts playing automatically.





Disc Search

You can select discs by moving the small joystick up/down.

Disc Number Search

You can select discs directly with the 1 to 6 buttons. Just press the number corresponding to the disc you want to listen to.

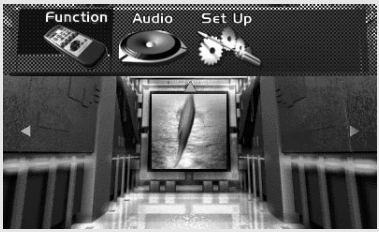
Track Search and Fast Forward/Reverse

You can select between Track Search or Fast Forward/Reverse by changing the length of time you hold the small joystick left/right.

Track Search	Less than 0.5 seconds
Fast Forward/Reverse	Continue pressing

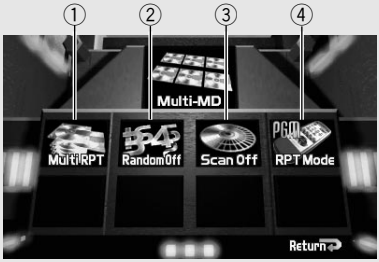
Operation at the Function Menu Screen

Accessing the Multi-MD Function Menu



1. **Press the MENU button.**
   The main menu icons whirl down with "Function" highlighted in green.
2. **Click the joystick.**
   The Multi-MD Function Menu appears, offering you the following options:
3. **Select the option by moving the joystick and click the joystick.**
   The selected option is highlighted in green.

■ Multi-MD Function Menu



① **Repeat Play**
Each click changes the Repeat mode in the following order:
Multi RPT (Multi-MD player Repeat) → Track RPT (One-track Repeat) → Disc RPT (Disc Repeat)

② **Random Play**
Each click changes the Random mode in the following order:
Random 1 → Random 2 → Random Off

③ **Scan Play**
Each click changes the Scan mode in the following order:
Scan 1 → Scan 2 → Scan Off

④ **PGM button**
Each click changes the PGM mode in the following order:
RPT Mode → Random

Display the Flip-Down Plate

You can display the Flip-Down plate and switch the display position of the Disc Title and Track Title. Also with text longer than 12 letters, you can see the rest of the text by scrolling. (Refer to "Information Screen" on page 13.)

Exit from the Multi-MD Function Menu

- **Press the RETURN button.**

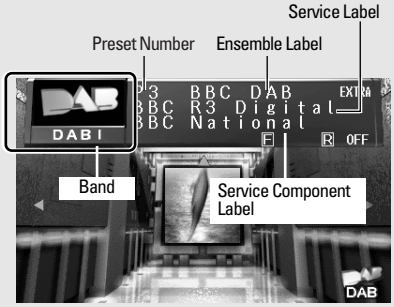
DAB Tuner

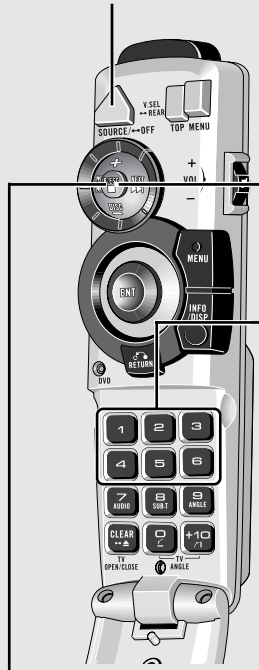
The following explains how to use this product to control DAB tuners. For details of DAB tuner-specific operations/features, see your DAB tuner's manual.

Basics

Selecting the DAB Tuner

Select the "DAB" as source by pressing the SOURCE button as many times as necessary.





Band

Each click changes the band in the following order:
DAB1 → DAB2 → DAB3

Preset Memory and Recalling Preset Services

You can memorize desired Services in buttons 1 through 6 for easy, one-touch recall.

Preset Service recall	Less than 2 seconds
Desired Service preset memory	More than 2 seconds

Note:
- Up to 18 DAB stations (6 in DAB1, DAB2 and DAB3) can be stored in memory.
- You can also use the small joystick up/down to recall Services memorized in buttons 1 through 6.

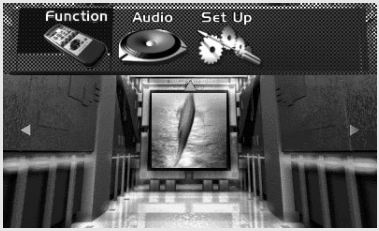
Selecting the Ensemble and the Service

You can select the tuning method by changing the length of time you hold the small joystick left/right.

Selecting the Ensemble	More than 0.5 seconds
Selecting the Service	Less than 0.5 seconds

Operation at the Function Menu Screen

Accessing the DAB Tuner Function Menu



1. **Press the MENU button.**
   The main menu icons whirl down, with "Function" highlighted in green.
2. **Click the joystick.**
   The DAB Tuner Function Menu appears, offering you the following options:
3. **Select the option by moving the joystick and click the joystick.**
   The selected option is highlighted in green.

■ DAB Tuner Function Menu

① **News Flash**
Each click toggles News On/Off.

② **Area Weather Flash**
Each click toggles Weather On/Off.

③ **Announcement**
Each click toggles Announce On/Off.

④ **Service Follow**
Each click toggles SF On/Off.

⑤ **Primary/Secondary**
Each click switches Service Component.

⑥ **Program button (PGM)**
Each click changes the PGM mode in the following order:
SF →1st/2nd

Language Filter Function

This product does not have the Language Filter Function. (Refer to page 15 of the Hideaway DAB Tuner's Operation Manual.)

PTY Function

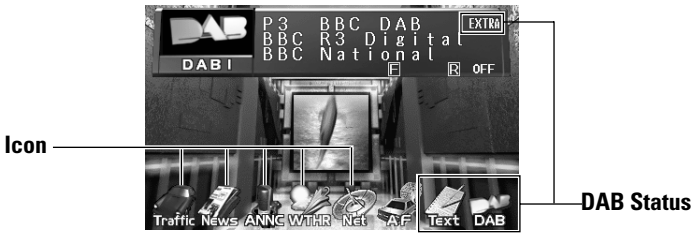
For the operation of the PTY Search, refer to "Searching the PTY" on page 30.

Exit from the DAB Tuner Function Menu

- **Press the RETURN button.**

About This Product's Indications

The following is an explanation of this product's indications.



Indications that light when Function is switched ON

Indicator	Function
Net*	Service Follow
WTHR*	Area Weather Flash
ANNC*	Announcement
News*	News Flash
Traffic*	Road Traffic Flash or Transport Flash

* If the set Announcement Support is received, the icon lights.

■ Swithcing the Road Traffic Flash and Transport Flash ON/OFF

- **Swtich Road Traffic Flash and Transport Flash ON/OFF by pressing the TA button.**

DAB status Indications

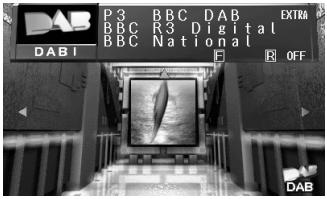
Indicator	Status
EXTRA	The currently received Service has a Secondary Service Component.
TEXT	The currently received Service has a Dynamic Label.
DAB	When DAB reception is possible.

Display the Flip-Down Plate

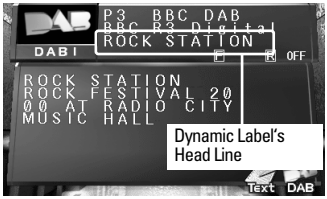
- **Press the DISPLAY button.**
  Each press of the DISPLAY button changes the Source Plate and Flip-Down Plate in the following order:
  Source Plate → Preset Service List → Dynamic Label Display → PTY Search Plate → No Plate

Examples

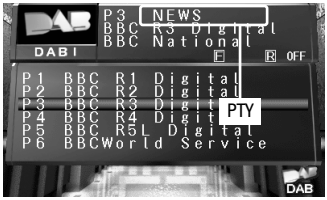
Source Plate



Dynamic Label Display



Preset Service List



PTY Search Plate

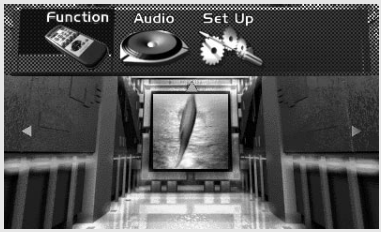
Note:
- The Preset Service List shows no Service Labels if none have been read.
- If the Service Component has no Dynamic Labels, you cannot switch to Dynamic Label Display.
- When Dynamic Labels are displayed, clicking the joystick updates Dynamic Label information.

Recalling Preset Services by Preset Service List

1. **Press the DISPLAY button for the Preset Service List to appear.**
2. **Select the band by pressing the BAND button.**
3. **Select the preset service by moving the joystick up/down.**
   Selected service is highlighted.
4. **Click the joystick.**
   Selected service is indicated in yellow and tuned.

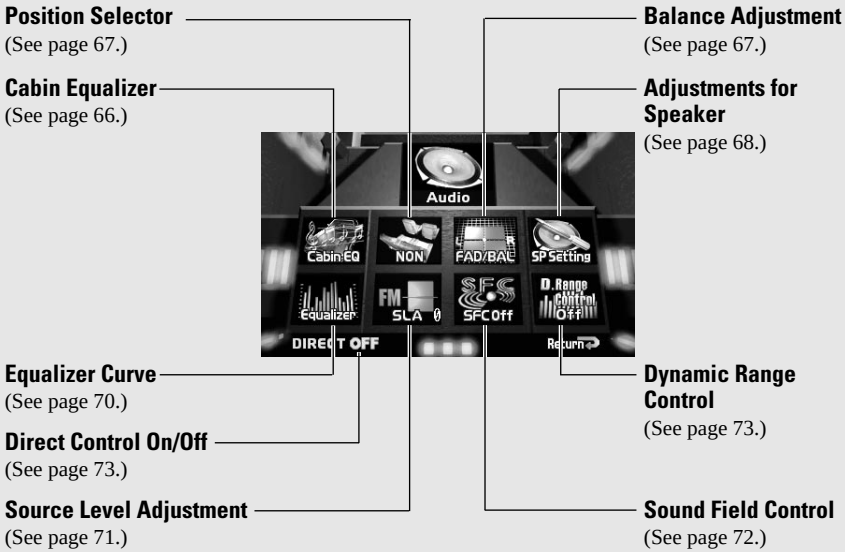
Adjusting Audio (Basic)

Accessing the Audio Menu



1. **Press the MENU button.**
   The main menu icons whirl down,with "Function" highlighted in green.
2. **Select "Audio" by moving the joystick.**
   "Audio" is highlighted in green.
3. **Click the joystick.**
   Audio Menu appears, offering you the following options:

■ **Audio Menu**



4. **Select the option by moving the joystick.**
   The selected option is highlighted in green.
5. **Click the joystick.**
   Refer to detailed operation of each function.

Exit from the Audio Menu

- **Press the RETURN button.**

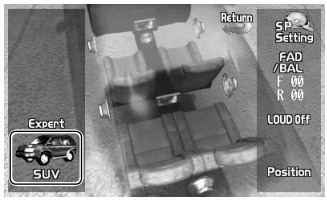
Proper Setting for the In-car Acoustic Characteristics

The built-in cabin equalizer allows you to easily adjust your audio system to meet the in-car acoustic characteristics which vary depending on the type of car and its measurement. To get the best possible sound spaciousness, be sure to make settings for the speakers. As well, making settings for “Position” and “Balance” boosts the effects of the cabin equalizer.

Cabin Equalizer

You can optimize the in-car acoustic characteristics by simply selecting a preset cabin EQ among SUV, SEDAN, WAGON and MINI VAN.

1. **Check to see “Cabin EQ” is currently highlighted.**
   If not, select that option by moving the joystick. “Cabin EQ” is highlighted in green.
2. **Click the joystick.**
   The Audio Setting Menu appears, with the currently effective type of car shown green.
3. **Click the joystick.**
   Each click changes type of car in the following order:
   SEDAN → WAGON → MINI VAN → SUV → CUSTOM → Off



Note:
- You can fine adjust or customize the preset cabin EQ. For details, see “Adjusting the Cabin Equalizer (Expert)” on page 78.

Operation at the Audio Setting Menu

- Use the joystick to move the cursor between different options. As such, the joystick will only move the cursor up/down and left/right. You cannot move diagonally.
  ↔ : Move the joystick left/right.
  ↕ : Move the joystick up/down.
- There are some settings you can make at the Audio Setting Menu without needing to go back to the Audio Menu.
  Position: See “Position Selector” (p. 67).
  LOUD: See “Loudness Adjustment” (p. 74).
  FAD/BAL: See “Balance Adjustment” (p. 67).
  SP Setting: See “Adjustments for Speaker” (p. 68).
  Expert: See “Adjusting the Cabin Equalizer (Expert)” (p. 78).
  Return: Completes operations at the Audio Setting Menu, bringing you back to the previous screen.

Position Selector

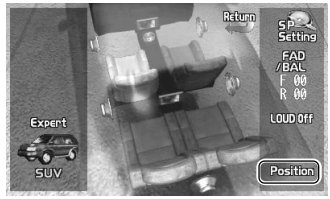
One way to assure a more natural sound is to clearly position the stereo sound image (putting you in the center of the sound field).

About the Position Selector

- The Position Selector function is a feature that automatically adjusts the speakers' output levels and inserts a delay time into the speakers' outputs depending on seats passengers occupy and the number of them. When used in conjunction with the Cabin EQ and SFC, the feature will make the sound image more natural and offer a panoramic sound that envelops you.

1. **Select "Position Selector" by moving the joystick.**
   "Position Selector" is highlighted in green.
2. **Click the joystick.**
   The Audio Setting Menu appears, with "Position" highlighted in green.

3. **Click the joystick again.**
   Each click changes listening position in the following order:
   Front Left ➞ Front Right ➞ Front Left & Right ➞ Rear Left ➞ Rear Right ➞ Rear Left & Right ➞ All Seats ➞ Off



Note:

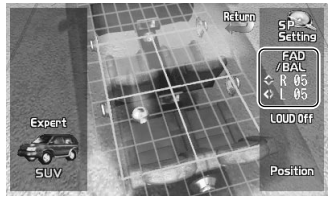
- For Time Alignment to be made, you need to have set the listening position to either of the Front Left or Right, or of the Rear Left or Right.

Balance Adjustment

This function allows you to select a Fader/Balance setting that provides ideal listening conditions in all occupied seats.

1. **Select "FAD/BAL" by moving the joystick.**
   "FAD/BAL" is highlighted in green.
2. **Click the joystick.**
   The Audio Setting Menu appears, with "FAD/BAL" highlighted in green.

3. **Click the joystick.**
   The FAD/BAL Setting Menu appears.
4. **Adjust speaker balance by moving the joystick.**
   The display shows "F 15" – "R 15" as it moves from front to rear.
   The display shows "L 09" – "R 09" as it moves from left to right.



5. Cancel the FAD/BAL Setting Menu by clicking the joystick.

Note:
- "F 00" is the proper setting when 2 speakers are in use.

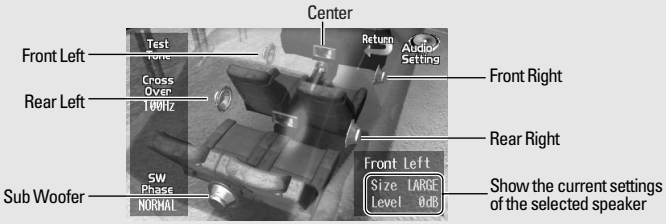
Adjustments for Speaker

You need to make "with/without" (or yes/no) and "size" (bass reproducing capacity) selection/adjustments depending on the installed speakers. The size needs to be set to Large if the speaker is capable of reproducing sounds of about 100 Hz or below. Otherwise select Small.

1. Select "SP Setting" by moving the joystick.
"SP Setting" is highlighted in green.

2. Click the joystick.
The Speaker Setting Menu appears.
The Front Left speaker is highlighted in green and in the lower right-hand corner of the screen the current settings of that speaker is shown.

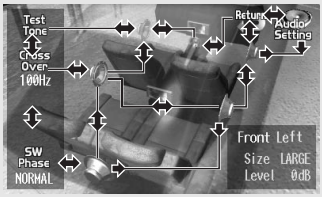
Operation at the Speaker Setting Menu



- To select a speaker, move the joystick up/down and left/right. You cannot move diagonally.

  ↔ : Move the joystick left/right.

  ↕ : Move the joystick up/down.



Test Tone: See "Adjusting the Speakers' Output Levels using a Test Tone" (p. 76).
Cross Over: See "Selecting a Crossover Frequency" (p. 77).
SW Phase: See "Correcting the Subwoofer's Phase" (p. 77).
Audio Setting: Select this to go to the Audio Setting Menu.
Return: Completes operations at the Speaker Setting Menu, bringing you back to the previous screen.

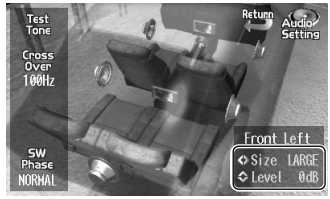
Continued overleaf.

3. **Select the speaker you want to make adjustments to by moving the joystick.**

   The currently selected speaker is highlighted in green.

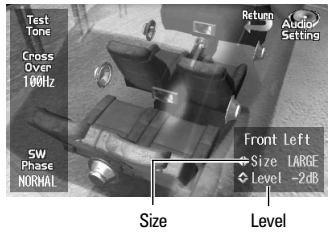
4. **Click the joystick.**

   and are displayed and you can set the size and the level for the selected speaker.



5. **Select the correct size for the selected speaker in use by moving the joystick left/right.**

   Select the speaker settings as follows:



Speakers	Setting
Front (Left & Right)	SMALL/LARGE
Rear (Left & Right)	OFF/SMALL/LARGE
Center	OFF/SMALL/LARGE
Sub Woofer	OFF/ON

Note:
- The Front Left and Right speakers cannot be set differently. The same is true for the Rear Left and Right.

6. **Adjust the speaker for output level by moving the joystick up/down.**

   When you make adjustments for listening position, the speakers are automatically set for appropriate output levels. You can tailor them if you want as discussed under the heading of “Adjusting the Speakers’ Output Levels using a Test Tone” or “Adjusting the Speakers’ Output Level”.

7. **Click the joystick.**

   This completes adjustment to the selected speaker.

8. **Repeat steps 3 – 7 for other speakers.**

Precaution:
- Low frequency range is not output if the subwoofer is set “OFF” and the front or rear speakers set “SMALL” or “OFF”.

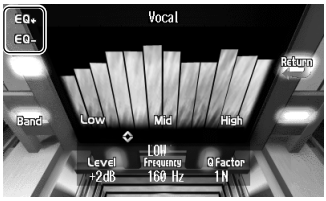
Note:
- It is imperative that non-installed speakers be set to “OFF”.
- Set the front or rear speaker to “LARGE” if the speaker is capable of reproducing bass content, or if no subwoofer is installed.
- When playing a 2-channel mono source with PRO LOGIC switched ON, there are occasions when the following will occur:
  No audio is output if the center speaker setting is “ON” while no center speaker is installed.
  Audio is heard only over the center speaker if installed and the center speaker setting is “ON”.

Equalizer Curve

You can switch between Equalizer curves.

1. **Select “Equalizer” by moving the joystick.**
   “Equalizer” is highlighted in green.
2. **Click the joystick.**
   The Graphic Equalizer Menu appears, with “Band” highlighted in green.

3. **Select either “EQ+” or “EQ–” by moving the joystick up/down.**
4. **Click the joystick.**
   Each click changes EQ curve in the following order:



With “EQ+” selected:

Powerful ➞ Natural ➞ Vocal ➞ Custom ➞ Flat ➞ Super Bass

With “EQ–” selected:

Powerful ➞ Super Bass ➞ Flat ➞ Custom ➞ Vocal ➞ Natural

Note:

- “CUSTOM” stores an equalizer curve you have made adjustments to. (Refer to “Adjusting the Equalizer Curves” on page 83.)
- You can create a different “CUSTOM” curve for each of the SLA function groups (see page 71). Remember, however, SLA is based on FM volume, so FM and MW/LW curve are always the same.

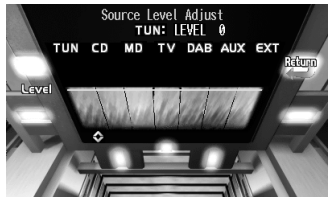
Source Level Adjustment (SLA)

The SLA (Source Level Adjustment) function prevents radical leaps in volume level when switching between sources. Settings are based on the FM volume level, which remains unchanged.

Before performing the following steps, select the source whose volume level you will adjust. (Refer to "Operation for Each Source Unit" on page 9.)

1. **Select "SLA" by moving the joystick.**
   "SLA" is highlighted in green.
2. **Click the joystick.**
   The SLA Setting Menu appears, with the selected source's level highlighted in green.

3. **Increase or decrease the level by moving the joystick up/down.**
   The display shows "+8" – "–8".
4. **In a similar manner, adjust the volume level of other sources.**
   You can perform SLA independently for each of the following groups:



Display	Source
TUN	MW/LW
CD	CD player, Multi-CD player, Multi-DVD player
MD	Multi-MD player
TV	TV, Video
DAB	DAB
AUX	AUX, Speaker Input
EXT	External 1, External 2

Note:
- Since the FM volume is the control, SLA is not possible in the FM modes.

Sound Field Control (SFC)

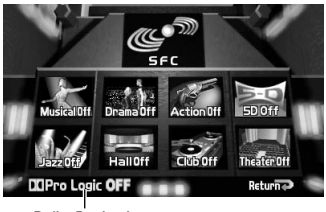
The SFC function creates the sensation of a live performance.

About the SFC function

- The acoustics of different performance environments are not the same and depend on the extent and contour of space through which sound waves move and on how sounds bounce off the stage, walls, floors and ceilings. At a live performance you hear music in three stages: direct sound, early reflections, and late reflections, or reverberations.
  Those factors are programed into the SFC circuitry to recreate the acoustics of various performance settings.

1. **Select “SFC” by moving the joystick.**
   “SFC” is highlighted in green.
2. **Click the joystick.**
   The SFC Menu appears, with “Musical” highlighted in green.

3. **Select the desired SFC mode by moving the joystick.**
   The currently selected SFC mode is highlighted in green.



Dolby Pro Logic

Display	Sound Field Control
Musical	Musical
Drama	Drama
Action	Action
5D	5D Theater
Jazz	Jazz
Hall	Hall
Club	Club
Theater	Theater

Continued overleaf.

4. **Click the joystick.**
   Each click toggles the selected SFC mode On/Off. Switch the SFC mode On to experience a sense of presence and spaciousness.

Remarks on Dolby PRO LOGIC ON/OFF

- If the source is a 2-channel LPCM audio or a 2-channel Dolby Digital audio and you select SFC effects that are most applicable for 5.1-channel audio (i.e., Musical, Drama, Action or 5D), we recommend switching Dolby Pro Logic ON. On the other hand, when selecting SFC effects that are intended for use with 2-channel audio (i.e., Jazz, Club, Hall or Theater), we recommend switching Dolby Pro Logic OFF.
- When playing a 2-channel mono source with PRO LOGIC switched ON, there are occasions when the following will occur:
  No audio is output if the center speaker setting is “ON” while no center speaker is installed.
  Audio is heard only over the center speaker if installed and the center speaker setting is “ON”.

Dynamic Range Control

The dynamic range refers to the difference between the largest and softest sounds. The dynamic range control compresses this difference so that you can clearly hear sounds even at low volume levels.

1. **Select “D. Range Control” by moving the joystick.**
   “D. Range Control” is highlighted in green.
2. **Click the joystick.**
   Each click toggles the Dynamic Range Control On/Off.

Note:

- The Dynamic Range Control is effective only on Dolby Digital sounds.

Direct Control ON/OFF

You can override audio settings to check for effectiveness of your audio settings.

1. **Select “DIRECT” by moving the joystick.**
   “DIRECT” is highlighted in green.
2. **Click the joystick.**
   Each click toggles DIRECT ON/OFF.
   When this feature is turned on, “DIRECT ON” appears in the center of the screen.

Note:

- All audio functions are locked out during DIRECT ON except VOLUME.

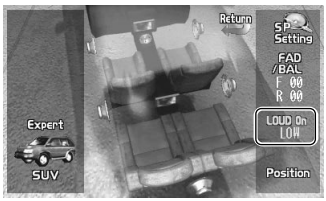
Loudness Adjustment

The Loudness function compensates for deficiencies in the low and high sound ranges at low volume. You can select a desired Loudness level.

1. **Select “Position Selector” by moving the joystick.**
   “Position Selector” is highlighted in green.

2. **Click the joystick.**
   The Audio Setting Menu appears, with “Position” highlighted in green.

3. **Select “LOUD” by moving the joystick up.**
   “LOUD” is highlighted in green.



4. **Click the joystick.**
   Each click changes sound range control in the following order:
   LOW → MID → HIGH → Off

Note:

- The Audio Menu Screen does not provide a direct access to “LOUD”.

Fine Adjusting Audio (Expert)

Before Getting Started

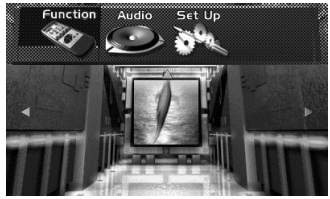
This section of the manual looks at trimming certain settings to customize audio to your taste. Check to make sure of the following settings before performing the steps below. In addition, it is also necessary that the Cabin Equalizer (see page 66) and Adjustments for Speaker (see page 68) should correctly have been set up and made in accordance with the type of car you are in and the speaker system in use.

Function	Setting	Page
DIRECT	OFF	73
Equalizer Curve	Flat	70
SFC (Sound Field Control)	Off	72
Fader/Balance	F 00/R 00	67
Position	Front Right, Front Left, Rear Right or Rear Left	67

Adjusting for the Speakers In Use

Accessing the Speaker Setting Menu

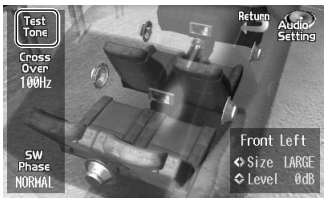
1. **Press the MENU button.**
   The main menu icons whirl down, with “Function” highlighted in green.
2. **Select “Audio” by moving the joystick.**
   “Audio” is highlighted in green.
3. **Click the joystick.**
   The Audio Menu appears.
4. **Select “SP Setting” by moving the joystick.**
   “SP Setting” is highlighted in green.
5. **Click the joystick.**
   The Speaker Setting Menu appears.



Adjusting the Speakers' Output Levels using a Test Tone

A convenient test tone allows you to easily get the overall balance right among the speakers.

1. **Select "Test Tone" by moving the joystick.**
   "Test Tone" is highlighted in green.



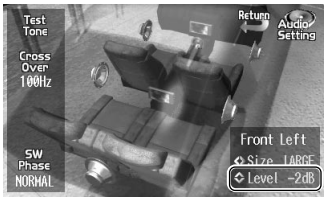
2. **Click the joystick.**
   The test test is output. It rotates from speaker to speaker in the following sequence at intervals of about 2 seconds. The current settings for the speaker over which you hear the test tone are shown in the lower right-hand corner of the screen.

   Front Left ➞ Center ➞ Front Right ➞ Rear Right ➞ Rear Left ➞ Subwoofer

   Check each speaker's output level. If no adjustments are needed, perform step 5 to stop the test tone.

   Note:
   - The settings do not appear for speakers whose Size is set OFF.

3. **Adjust the speakers' output level by moving the joystick up/down.**
   The display shows "–10 dB" – "+10 dB".
   The test tone rotates to next speaker after about 2 seconds from the last joystick operation.



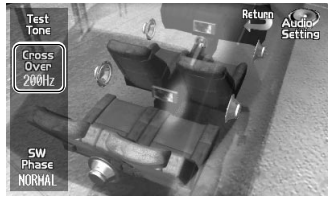
4. **Repeat step 3, make adjustment of the other speakers' output level.**

5. **Complete the procedure by clicking the joystick.**

   Note:
   - If needed, select speakers and adjust their 'absolute' output level, refer to "Adjustments for Speaker". (See page 68.)
   - To adjust the speakers' output level at the Speaker Setting Menu is the same as making an speakers' output level at the Expert Setting Menu. Both provide the same results.

Selecting a Crossover Frequency

You can select a frequency, sounds under which are reproduced through the subwoofer.
If the installed speakers include one whose “Size” has been set “SMALL”, you can select a frequency, sounds under which are reproduced through a “LARGE” speaker or subwoofer.

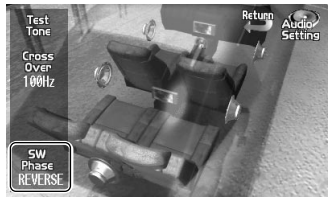


1. **Select “Cross Over” by moving the joystick.**
   “Cross Over” is highlighted in green.
2. **Click the joystick.**
   Each click changes crossover frequency in the following order:
   100 Hz → 200 Hz → 63 Hz

Note:
- Selecting a crossover frequency is to set a cut-off frequency of the subwoofer’s L.P.F. (low-pass filter) and that of the “SMALL” speaker’s H.P.F. (high-pass filter). Crossover frequency setting has no effect if the subwoofer is set “OFF” and any other speaker set “LARGE” or “OFF”.

Correcting the Subwoofer’s Phase

If trying to boost the bass output of the subwoofer doesn’t do much or rather makes you feel that bass gets further murky, this may indicate that the subwoofer’s output and bass content you hear over other speakers cancel each other out.
To remove this problem, try changing the phase setting for the subwoofer.



1. **Select “SW Phase” by moving the joystick.**
   “SW Phase” is highlighted in green.
2. **Click the joystick.**
   Each click toggles NORMAL and REVERSE.

Adjusting the Cabin Equalizer (Expert)

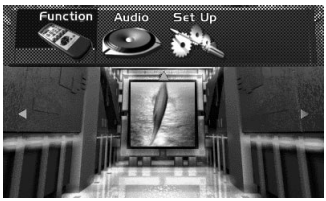
At the Expert Setting Menu you can make fine adjustments for 3-band parametric EQ, speaker output level and time alignment, speaker by speaker. “Band”, “Frequency”, “EQ Level” and “Q Factor” are options you need to select when adjusting the 3-band parametric equalizer.

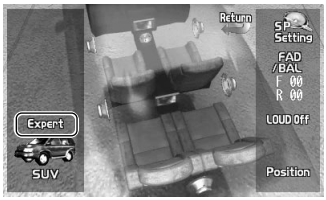
Tips for adjusting the Cabin Equalizer

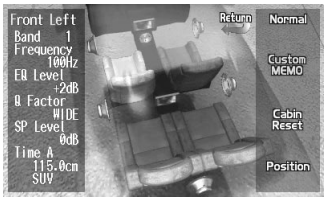
- The center speaker largely determines the sound image and getting the balance right isn’t easy. We recommend reproducing a 2-ch. audio (a CD for example) and getting the balance right among the speakers except for the center, and then reproducing a 5.1-ch. audio (Dolby Digital or DTS) and adjusting the center speaker’s output to the balance you have already got among the other speakers.
- When you make adjustment for speakers, the currently selected type of car is highlighted in orange showing that a tailored EQ curve is stored in memory. Your tailored Cabin EQ can be stored in memory (see page 82) and be erased from memory (see page 82).

Accessing the Expert Setting Menu

1. **Press the MENU button.**
   The main menu icons whirl down, with “Function” highlighted in green.
2. **Select “Audio” by moving the joystick.**
   “Audio” is highlighted in green.
3. **Click the joystick.**
   The Audio Menu appears.
4. **Check to see “Cabin EQ” is currently highlighted.**
   If not, select that option by moving the joystick. “Cabin EQ” is highlighted in green.
5. **Click the joystick.**
   The Audio Setting Menu appears, with the currently effective type of car shown in green.
6. **Select “Expert” by moving the joystick.**
   “Expert” is highlighted in green.
7. **Click the joystick.**
   The Expert Setting Menu appears, with Front Left speaker highlighted in green and setting menu on the left.





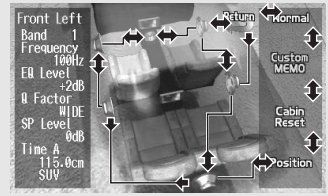


Operation at the Expert Setting Menu

- To select options, move the joystick up/down or left/right. You cannot move diagonally.

  ↔ : Move the joystick left/right.

  ↕ : Move the joystick up/down.



Normal: Select this to go to the Audio Setting Menu. (p. 66)
Custom MEMO: See “Storing the Adjusted Cabin EQ into Memory” (p. 82).
Cabin Reset: See “Reset Adjusted Cabin EQ” (p. 82).
Position: See “Position Selector” (p. 67).
Return: Completes operations at the Expert Setting Menu, bringing you back to the previous screen.

Adjusting 3-Band Parametric Equalizer

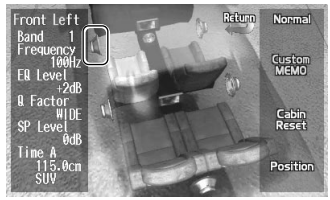
You can adjust the front, rear and center EQ curves separately by selecting a center frequency (Frequency), an EQ level (EQ Level) and a Q factor (Q Factor) for each band (Band).
The cabin EQ is an equalizer that optimizes the in-car acoustic characteristics and is basic to creation of sound fields most appropriate for your car. If you want to adjust sound fields to the current listening source of music, use the equalizer referred to in “Adjusting the Equalizer Curves” on page 83.

Center Frequency

- You can select a center frequency from among 20 frequencies for each band. You can change the center frequency in 1/3-octave steps, but you cannot select frequencies so that there are intervals shorter than 1 octave among the three bands’ center frequencies.

1. Select a speaker by moving the joystick.

The currently selected speaker is highlighted in green.



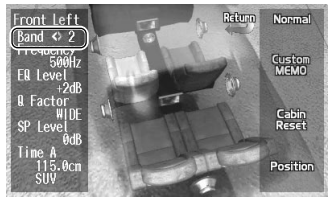
Note:

- When selecting the subwoofer, you cannot make adjustment to the 3-band parametric EQ. For the subwoofer you can only adjust its output level (see page 80) and perform a time alignment procedure (see page 81).

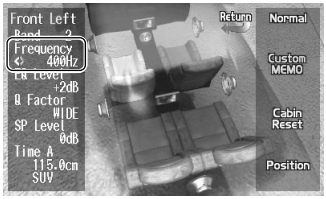
2. Click the joystick.

You are ready to adjust the selected speaker’s settings. “Band” is highlighted in green.

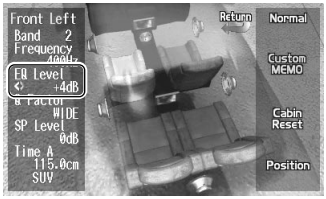
3. Select a band by moving the joystick left/right.



4. **Select “Frequency”, “EQ Level” or “Q Factor” by moving the joystick up/down.**
   Selected option is highlighted in green.



5. **Adjust the selected option by moving the joystick left/right.**
   The selectable options are adjustable in the following limits:



Option	Adjustable Range
Frequency	100 Hz – 8 kHz
EQ Level	–12 dB – +12 dB
Q Factor	WIDE/NARROW

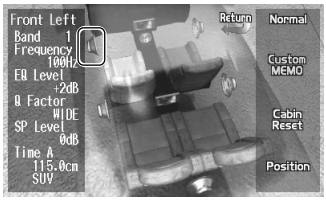
Note:
- The Front Left and Right speakers cannot be adjusted differently. The same is true for the Rear Left and Right. When you make adjustment to either of the pair, the other is automatically set to the same position.

6. **Select “Band” by moving the joystick up.**
7. **Repeat steps 3 – 6 for the selected band.**
8. **Complete the setting by clicking the joystick.**
9. **Repeat steps 1 – 8 for other speakers.**

Adjusting the Speakers’ Output Level

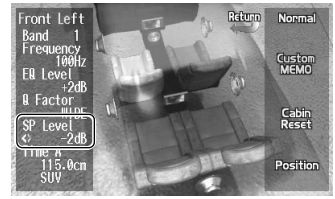
You can readjust the speakers’ output levels once adjusted using a test tone while hearing music this time.

1. **Select a speaker by moving the joystick.**
   The currently selected speaker is highlighted in green.
2. **Click the joystick.**
   You are ready to make adjustments to the selected speaker. “Band” is highlighted in green.



Continued overleaf.

3. **Select “SP Level” by moving the joystick.**
   “SP Level” is highlighted in green.
4. **Adjust the speaker’s output level by moving the joystick left/right.**
   The display shows “–10 dB” – “+10 dB”.
5. **Complete the setting by clicking the joystick.**



Note:
- The output level you set at the Expert Setting Menu is imported into the speaker’s output level field in the Speaker Setting Menu.

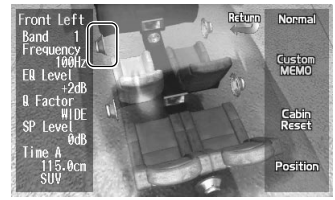
Adjusting the Time Alignment

By adjusting the distance between each speaker and a selected listening position, you can insert delay times into the speakers’ output to obtain a correct sound image and overall level balance. Although this is automatically achieved when you set the Cabin EQ (see page 66) or the listening position (see page 67), the Time Alignment feature provides a fine adjustment.

To perform time alignment

- The listening position must correctly be set (see page 67).

1. **Select a speaker by moving the joystick.**
   The currently selected speaker is highlighted in green.
2. **Click the joystick.**
   You are ready to make adjustments to the selected speaker. “Band” is highlighted in green.



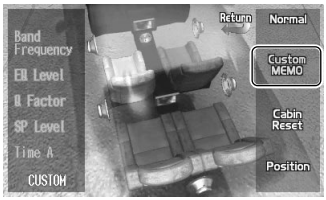
3. **Select “Time A” by moving the joystick down.**
   “Time A” is highlighted in green.
4. **Select a distance by moving the joystick left/right.**
   The display shows “0” – “500” cm.
5. **Complete the setting by clicking the joystick.**

Note:
- “A” in “Time A” is for Alignment.

Storing the Adjusted Cabin EQ into Memory

Once you have adjusted a Cabin EQ, you can store it into memory.

1. **Select “Custom MEMO” by moving the joystick.**
   “Custom MEMO” is highlighted in green.



2. **Click the joystick.**
   Your adjusted cabin EQ has been stored into memory, and car type changes to “CUSTOM” in the lower left-hand corner of the screen.

Note:

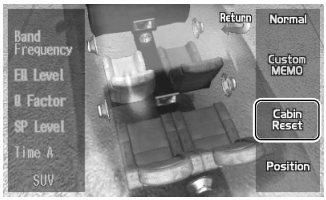
- You can perform the above steps as many times as you want in the process of customizing a cabin EQ. Each time you do so, the “Custom MEMO” is updated.

Reset Adjusted Cabin EQ

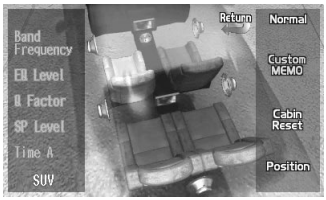
You can switch a tailored Cabin EQ back to its initial setting status.

You need to select a Cabin EQ (type of car) to be reset first. (Refer to “Cabin Equalizer” on page 66.)

1. **Select “Cabin Reset” by moving the joystick.**
   “Cabin Reset” is highlighted in green.



2. **Click the joystick.**
   The customized EQ is erased and the type of car displayed in the lower left-hand corner of the screen, that was highlighted in orange, is grayed out.

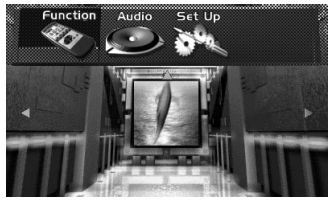


Adjusting the Equalizer Curves

The Cabin EQ is factory set to provide the best possible sound depending on types of car. Against this background you can also adjust Equalizer Curves, or sound effects, to create sound according to your preference.

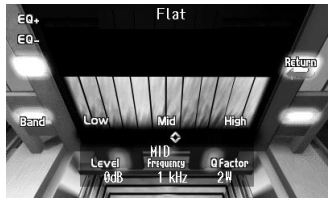
Before performing the following steps, select the source whose EQ curve you'll adjust. (Refer to "Operation for Each Source Unit" on page 9.)

1. **Press the MENU button.**
   The main menu icons whirl down, with "Function" highlighted in green.
2. **Select "Audio" by moving the joystick.**
   "Audio" is highlighted in green.
3. **Click the joystick.**
   The Audio Menu appears.

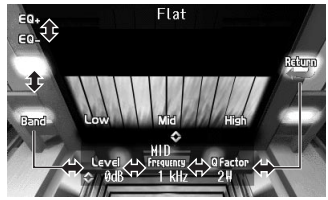


4. **Select "Equalizer" by moving the joystick.**
   "Equalizer" is highlighted in green.
5. **Click the joystick.**
   The Graphic Equalizer Menu appears, with "Band" highlighted in green.

6. **Select the band by clicking the joystick.**
   Each click changes band in the following order:
   Low → Mid → High

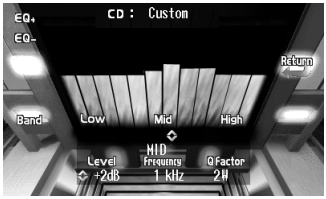


7. **Select "Level", "Frequency" or "Q Factor" by moving the joystick.**
   Selected option is highlighted in green.



8. Adjust the selected option by moving the joystick up/down.

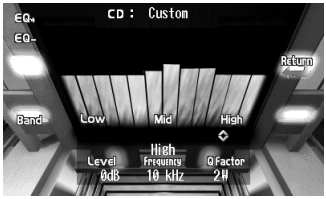
The selectable options are adjustable in the following limits:
As well, “Frequency” differs in adjustable range from Band to Band.



Option	Adjustable Range
Level	–12 dB to +12 dB
Frequency	Low: 40/80/100/160 Hz
	Mid: 200/500/1k/2k Hz
	High: 3.15k/8k/10k/12.5k Hz
Q Factor	2W/1W/1N/2N

9. Select “Band” by moving the joystick.

10. Repeat steps 6 – 9 for other bands.



Note:

- If you make adjustments when a curve other than “CUSTOM” is selected, “CUSTOM” appears and the adjusted curve is stored in “CUSTOM”. (See page 70.)
- For how to select EQ curves other than “CUSTOM”, refer to “Equalizer Curve”.

Changing the Initial Settings

Accessing the Initial Settings Menu

1. **Switch the Power off by pressing the SOURCE button for 1 second.**
2. **Press the MENU button for 2 seconds.**
   The Initial Settings Menu appears, with “FM” highlighted in green.

■ **Initial Settings Menu**

Switching the DAB Priority Function
(See page 86.)

Changing the FM Tuning Step
(See page 86.)

Switching the Auto PI Seek
(See page 86.)

Correcting Distorted Sound
(See page 87.)

Setting the Time
(See page 87.)

Adjusting the Display Position
(See page 88.)

Changing the Pattern of Plate
(See page 88.)

3. **Select the option by moving the joystick.**
   The selected option is highlighted in green.
4. **Click the joystick.**
   Refer to detailed operation of each function.

Exit from the Initial Settings Menu

- **Press the RETURN button.**
  Exit from the Initial Settings Menu and switch power off.

Changing the FM Tuning Step

Normally set at 50 kHz during Seek tuning in the FM mode, the tuning step changes to 100 kHz when the AF or TA mode is activated.
It may be preferable to set tuning step to 50 kHz in the AF mode.

1. **Check to see “FM” is currently highlighted.**
   If not, select that option by moving the joystick.
   “FM” is highlighted in green.
2. **Click the joystick.**
   Each click toggles 100 kHz/50 kHz.

Note:
- The tuning step remains set at 50 kHz during Manual tuning.
- The tuning step returns to 100 kHz if the battery is temporarily disconnected.

Setting the DAB Priority Function

When a Hide-away DAB tuner (e.g. GEX-P900DABII) is connected, you can set the product in this mode so that the interruption of traffic information from the Hide-away DAB tuner takes precedence over this product’s RDS Traffic Announcement (TA) function.

When it is ON

- During DAB reception, when the selected Service Component supports Road Traffic Flashes and Transport Flashes, reception is not interrupted by this product’s RDS Traffic Announcement (TA).

When it is OFF

- Interruption is by the first received news flash from among this product’s RDS and the hide-away DAB traffic information broadcasts.

1. **Select “DAB” by moving the joystick.**
   “DAB” is highlighted in green.
2. **Click the joystick.**
   Each click toggles DAB On/Off.

Note:
- You can only select to the DAB Priority Setting mode when a separately sold Hide-away DAB tuner (e.g. GEX-P900DABII) is connected.

Switching the Auto PI Seek

During Preset Station PI Seek operation, you can switch the Auto PI Seek function ON/OFF. (Refer to “PI Seek Function” on page 27.)

1. **Select “AUTO PI” by moving the joystick.**
   “AUTO PI” is highlighted in green.
2. **Click the joystick.**
   Each click toggles AUTO PI On/Off.

Correcting Distorted Sound

You can minimize distortion likely caused depending on the EQ curve settings.

1. **Select “SENS” by moving the joystick.**
   “SENS” is highlighted in green.
2. **Click the joystick.**
   Each click toggles SENS High/Low.

Note:

- Setting an EQ level high can cause distortion. If highs sound crippled or distorted, try switching to “Low”. Normally, leave the setting at “High” to ensure quality sound.

Setting the Time

This is the mode for setting the time on the product’s clock display.

1. **Select “Adjust” by moving the joystick.**
   “Adjust” is highlighted in green.
2. **Click the joystick.**
   The clock adjustment display appears on the screen.

3. **Adjust “Hour” by moving the joystick up/down.**
4. **Adjust “Minute” by moving the joystick left/right.**
   As soon as you switch to “Minute”, the seconds start counting from 00.
5. **Click the joystick.**
   The clock adjustment display disappears.

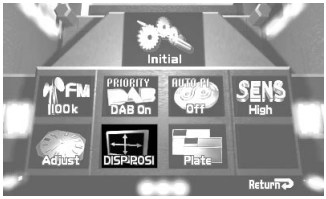
Note:

- How to display the time indication is discussed under the heading of “Switching the Center Screen and Time Display in the Center Room” on page 89.

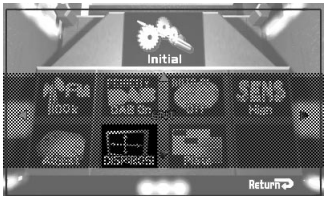
Adjusting the Display Position

You can adjust the position of the display.

1. **Select “DISP POSI” by moving the joystick.**
   “DISP POSI” is highlighted in green.
2. **Click the joystick.**



3. **Adjust the display position by moving the joystick.**
4. **Click the joystick.**
   The adjusted display position is memorized.



Changing the Pattern of Plate

You can change the pattern of the Source Plate and Flip-Down Plate in sequence.

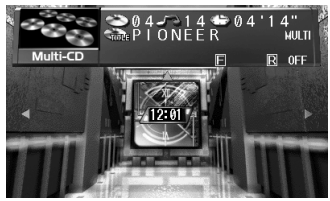
1. **Select “Plate” by moving the joystick.**
   “Plate” is highlighted in green.

2. **Click the joystick.**
   Each click changes the pattern of the plate in the following order:
   Pattern 1 → Pattern 2 → Pattern 3

Other Functions

Switching the Center Screen and Time Display in the Center Room

You can change the center screen to show a simple source information, time display in addition to 9 different video clips.



1. **Select the desired Display by clicking the joystick.**

   Each click changes the center screen in the following order:

   Video clips → Simple source information → Time display

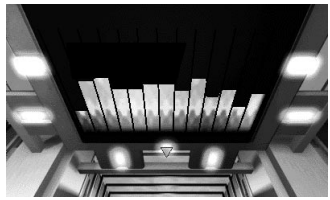
2. **Select a desired video clip by moving the joystick down when the video clip is playing.**

Note:

- A simple source information shows nothing when the Source Plate is displayed.

Switching the Color of the Spectrum Analyzer

You can select a color for the spectrum analyzer from among 6 options.



1. **Move the joystick up.**

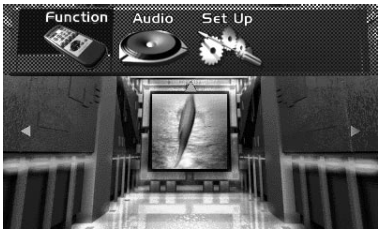
   The spectrum analyzer appears.

2. **Click the joystick.**

   Each click changes the color of the spectrum analyzer in sequence.

Accessing the Set Up Menu

1. **Press the MENU button.**
   The main menu icons whirl down,with "Function" highlighted in green.
2. **Select "Set Up" by moving the joystick.**
   "Set Up" is highlighted in green.
3. **Click the joystick.**
   The Set Up Menu appears.

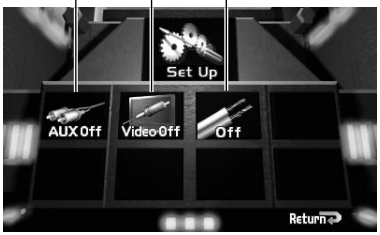


■ Set Up Menu

Switching the Video Mode
(See page 91.)

Switching the Aux Source
(See below.)

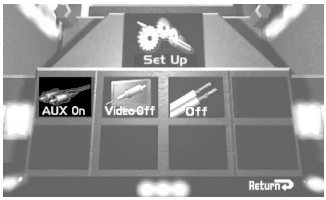
Switching the Speaker Input Mode
(See page 91.)



Switching the AUX Source

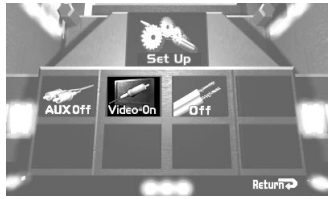
An IP-BUS-RCA Interconnector such as CD-RB20 (sold separately) enables you to connect this product to auxiliary equipment featuring an RCA output.
For more details, refer to the IP-BUS-RCA Interconnector's Owner's Manual.

1. **Check to see "AUX" is currently highlighted.**
   If not, select that option by moving the joystick.
   "AUX" is highlighted in green.
2. **Click the joystick.**
   Each click toggles AUX On/Off.
3. **Press the RETURN button.**
   You go back to the Center Room.
4. **Select "AUX" by pressing the SOURCE button.**



Switching the Video Mode

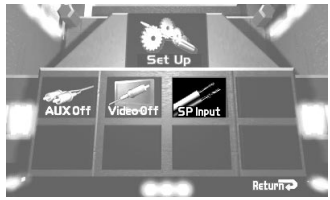
When connecting an external video component to the video input, switch the Video mode ON.



1. **Select “Video” by moving the joystick.**
   “Video” is highlighted in green.
2. **Click the joystick.**
   Each click toggles Video On/Off.
3. **Press the RETURN button.**
   You go back to the Center Room.
4. **Select the “Video” by pressing the SOURCE button.**

Switching the Speaker Input Mode

When connecting auxiliary equipment to the speaker input terminal, switch the Speaker Input mode ON.

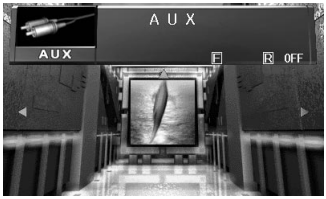


1. **Select “Off” by moving the joystick.**
   “Off” is highlighted in green.
2. **Click the joystick.**
   Each click toggles SP Input/Off.
3. **Press the RETURN button.**
   You go back to the Center Room.
4. **Select the “SP Input” by pressing the SOURCE button.**

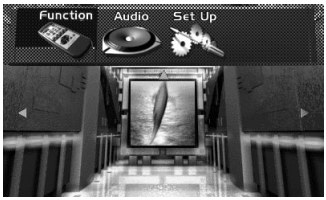
AUX Title Input

The display title for AUX source can be changed.

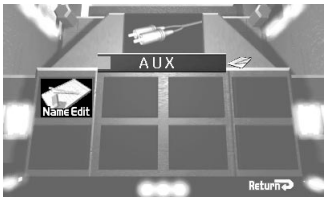
1. **Select "AUX" by pressing the SOURCE button.**
2. **Press the MENU button.**
   The main menu icons whirl down, with "Function" highlighted in green.



3. **Click the joystick.**
   The Function Menu appears, with "Name Edit" highlighted in green.



4. **Click the joystick.**
   The title edit display appears on the screen.
5. **Input the Aux Title.**
   Refer to "Disc Title Input" on page 51, and perform procedures 5 to 8 in the same way.



Muting Function

Mobile Navigation Unit Muting

In the following cases, sound from this product's front speakers are muted automatically:

- When the guidance audio is output from Mobile Navigation Unit connected to this product. (The guidance audio is output with muted source sound.)
- When you operate the Mobile Navigation Unit connected to this product by voice.
- When the guidance audio from the Mobile Navigation Unit cannot be heard such as when the Multi-DVD Player is selected as the source or no sounds are being played back (as when a disc menu or a set-up menu is displayed).

Cellular Telephone Muting

Sound from this system is muted automatically when a call is made or received using a cellular telephone connected to this product.
The sound is turned off, "MUTE" is displayed and no audio adjustment is possible. Operation returns to normal when the phone connection is ended.

Troubleshooting

If you think there is something wrong with the unit.
Before requesting repairs, check the following chart.

→

If the problem remains even after checking.
Reset the unit. (See page 7.)

→

If the problem still remains.
Request repairs.

■ General

Symptom	Cause	Remedy
The power switch does not work. No functions come on.	Cables or connectors are not correctly connected.	Check whether the cables are plugged in correctly and firmly.
	The fuse is broken.	Remove the cause of the breaking of the fuse, then replace the fuse. Be very sure the same rated proper fuse is installed.
The remote control does not work.	The battery power is running out.	Replace the batteries. (See page 8.)
	The remote control is not in the correct operation mode.	Switch the remote control to the proper mode. (See page 3.)
No sounds are heard. The volume level will not rise.	Cables are not connected correctly.	Connect the cables correctly.
	The volume is turned all the way down.	Increase the volume. (See page 10.)
	The front, rear, left and right speakers are not properly adjusted in level balance.	Adjust the relative levels between the speakers correctly. (See page 67.)

■ General (continued from previous page)

Symptom	Cause	Remedy
Sound is not heard over a specific speaker.	The speaker's Size is set to OFF.	Make the correct Size setting for the speaker. (See page 68.)
	The speaker's Level is set to too low a position.	Increase the speaker's Level setting to get the balance right with the other speakers. (See pages 76 and 80.)
	The center speaker's Size is set to SMALL or LARGE whereas no center speaker is installed.	Set the center speaker's Size to OFF. (See page 68.)
No images come on.	The parking brake cord is not connected.	Connect the parking brake cord and engage the parking brake.
	The parking brake is not engaged.	

■ Audio/DSP

Symptom	Cause	Remedy
Speakers are not available to be adjusted.	Their Size settings is at OFF.	Make the correct Size settings. (See page 68.)
Time Alignment is not available.	Listening Position is not set correctly.	Set Listening Position correctly. (See page 67.)
	Their Size settings is at OFF.	Make the correct Size settings. (See page 68.)
The subwoofer is not available to switch its phase.	The subwoofer is set to OFF.	Set the subwoofer to the ON position. (See page 68.)
Bass content is not heard.	The subwoofer is set to OFF and yet other speakers are set to OFF or SMALL in Size.	Make the correct settings. (If no subwoofer is installed, the front or rear speaker needs set to LARGE.) (See page 68.)

■ Audio/DSP (continued from previous page)

Symptom	Cause	Remedy
Occasionally no sounds are output when Dolby Pro Logic is switched on.	The center speaker setting is at SMALL or LARGE whereas no center speaker is installed.	Change the center speaker's Size setting to OFF. (If the audio source is mono and Dolby Pro Logic is switched on, sound is heard over the center speaker only.) (See page 68.)
Occasionally no sounds are heard over other speakers than the center one.	Dolby Pro Logic is switched on.	Set Dolby Pro Logic to OFF. (If the audio source is mono and Dolby Pro Logic is switched on, sound is heard over the center speaker only.) (See page 73.)
Switching Dynamic Range Control ON has no effects.	The currently reproduced sound is not Dolby Digital coded.	The feature is only effective on Dolby Digital sounds. (See page 73.)

■ DVD Player (if installed)

Symptom	Cause	Remedy
The remote control does not operate.	The remote control is not in the correct operation mode.	Switch the remote control to the proper mode. (See page 3.)
No sounds come from the DVD player only.	The optical cable has become detached.	Connect the cable correctly.
	The DVD player is not properly set for output.	Make the correct output setting. (See the manual for the DVD player.)

Terms

Dolby Digital

Dolby Digital provides discrete multichannel (up to a maximum of 5.1) audio. This is the same audio system as is installed in movie theaters.
To enjoy Dolby Digital sound you need to connect this product's optical digital input to the digital output on a DVD player with Dolby Digital decoding capability.

Dolby Surround Pro Logic

When you play a 2-channel audio disc marked Dolby Surround Pro Logic using an AV amplifier equipped for Dolby Pro Logic, the audio is converted into 4-channel audio.
Dolby Pro Logic gives enhanced spatial and directional effects, creating theater-like sense of presence and ambience.

DTS for Digital Theater Surround

DTS differs from Dolby Digital, providing a maximum of 6-channel discrete multichannel audio. To hear DTS discs, you need to connect the digital output on DTS-capable DVD players and other units to this product's digital input.

Dynamic Range Control

Dolby Digital has a function for compressing the difference between the loudest and softest sounds: Dynamic Range Control. This control ensures sounds with an increased dynamic range are heard clearly even at low volume levels.

Linear PCM (LPCM) /Pulse Code Modulation

This is a recording technology used on music CDs. Some DVD-Video discs also contain PCM sound tracks. While music CDs are recorded at 44.1 kHz/16 bits, DVD-Video discs' sound tracks are recorded at 48 kHz/16 bits to 96 kHz/24 bits, thereby offering better quality audio than music CDs.

Optical Digital Input

By receiving optical digital input audio signals in a digital signal format, the chance is minimized that the sonic quality deteriorates in the course of transmission. An optical digital input is an input designed to receive digital signals optically. (To take advantage of the digital input, output units such as DVD players must have optical outputs.)

Installation

Connecting the Units

Note:

- This unit is for vehicles with a 12-volt battery and negative grounding. Before installing it in a recreational vehicle, truck, or bus, check the battery voltage.
- To avoid shorts in the electrical system, be sure to disconnect the ⊖ battery cable before beginning installation.
- Refer to each product's manual for details on connecting the power amp and other units, then make connections correctly.
- Secure the wiring with cable clamps or adhesive tape. To protect the wiring, wrap adhesive tape around them where they lie against metal parts.
- Route and secure all wiring so it cannot touch any moving parts, such as the gear shift, handbrake and seat rails. Do not route wiring in places that get hot, such as near the heater outlet. If the insulation of the wiring melts or gets torn, there is a danger of the wiring short-circuiting to the vehicle body.
- Don't pass the yellow lead through a hole into the engine compartment to connect to the battery. This will damage the lead insulation and cause a very dangerous short.
- Do not shorten any leads. If you do, the protection circuit may fail to work when it should.
- Never feed power to other equipment by cutting the insulation of the power supply lead of the unit and tapping into the lead. The current capacity of the lead will be exceeded, causing overheating.
- When replacing fuse, be sure to use only fuse of the rating prescribed on the fuse holder.
- Since a unique BPTL circuit is employed, never wire so the speaker leads are directly grounded or the left and right ⊖ speaker leads are common.
- Speakers connected to this unit must be high-power types with minimum rating of 45 W and impedance of 4 to 8 ohms. Connecting speakers with output and/or impedance values other than those noted here may result in the speakers catching fire, emitting smoke or becoming damaged.
- When this product's source is switched ON, a control signal is output through the blue/white lead. Connect to an external power amp's system remote control or the car's Auto-antenna relay control terminal (max. 300 mA 12 V DC). If the car features a glass antenna, connect to the antenna booster power supply terminal.
- When an external power amp is being used with this system, be sure not to connect the blue/white lead to the amp's power terminal. Likewise, do not connect the blue/white lead to the power terminal of the auto-antenna. Such connection could cause excessive current drain and malfunction.
- To avoid short-circuiting, cover the disconnected lead with insulating tape. Especially, insulate the unused speaker leads without fail. There is a possibility of short-circuiting if the leads are not insulated.
- To prevent incorrect connection, the input side of the IP-BUS or optical cable connector is blue, and the output side is black. Connect the connectors of the same colors correctly.
- If this unit is installed in a vehicle that does not have an ACC (accessory) position on the ignition switch, the red lead of the unit should be connected to a terminal coupled with ignition switch ON/OFF operations. If this is not done, the vehicle battery may be drained when you are away from the vehicle for several hours.

ACC position

No ACC position

- The black lead is ground. Please ground this lead separately from the ground of high-current products such as power amps.
  If you ground the products together and the ground becomes detached, there is a risk of damage to the products or fire.

- To ensure proper heat dissipation of this product, take special care not to block the cooling fan side of this product.

- Cords for this product and those for other products may be different colors even if they have the same function. When connecting this product to another product, refer to the supplied Installation manuals of both products and connect cords that have the same function.

Routing the Optical Cable

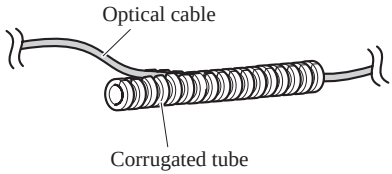
Precaution:

- Try not to bend the optical cable sharply. If it is necessary to bend it sharply, make sure that the bending radius is at least 25 mm (1 inch), otherwise the cable will not transfer signals properly and so this unit will not work properly.
- Route the optical cable so that nothing heavy rests on it, and so that it cannot be stepped on or caught in anything – for instance, a door.
- Make a loop of diameter at least 200 mm (7-7/8 inches) with the remaining optical cable so that the cable does not get strained.
- When plugging the optical cable into the unit, use the supplied cable clamps to prevent the cable from being bent sharply.
- Route the optical cable so that it does not get caught in moving parts such as the gear shift, hand brake, or seat sliding mechanism. Keep the cable away from hot spots, such as near the heater outlet.

■ Using the Corrugated Tube

To prevent the optical cable from being strained, use the corrugated tube after cutting it to the correct length.

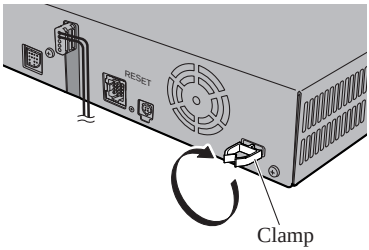
- **Insert the optical cable into the corrugated tube.**



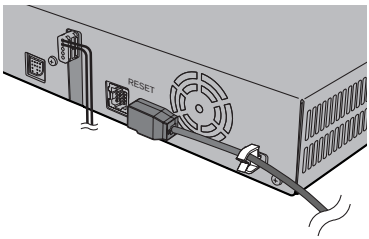
■ Mounting the Clamp

The clamp is used to secure the optical cable when using it.

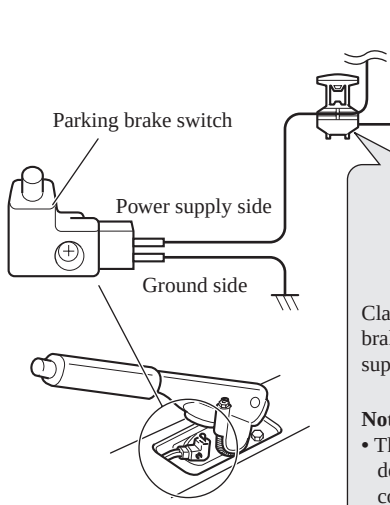
1. **Insert the clamp in the direction indicated in the figure, and turn it 90 degrees to lock.**

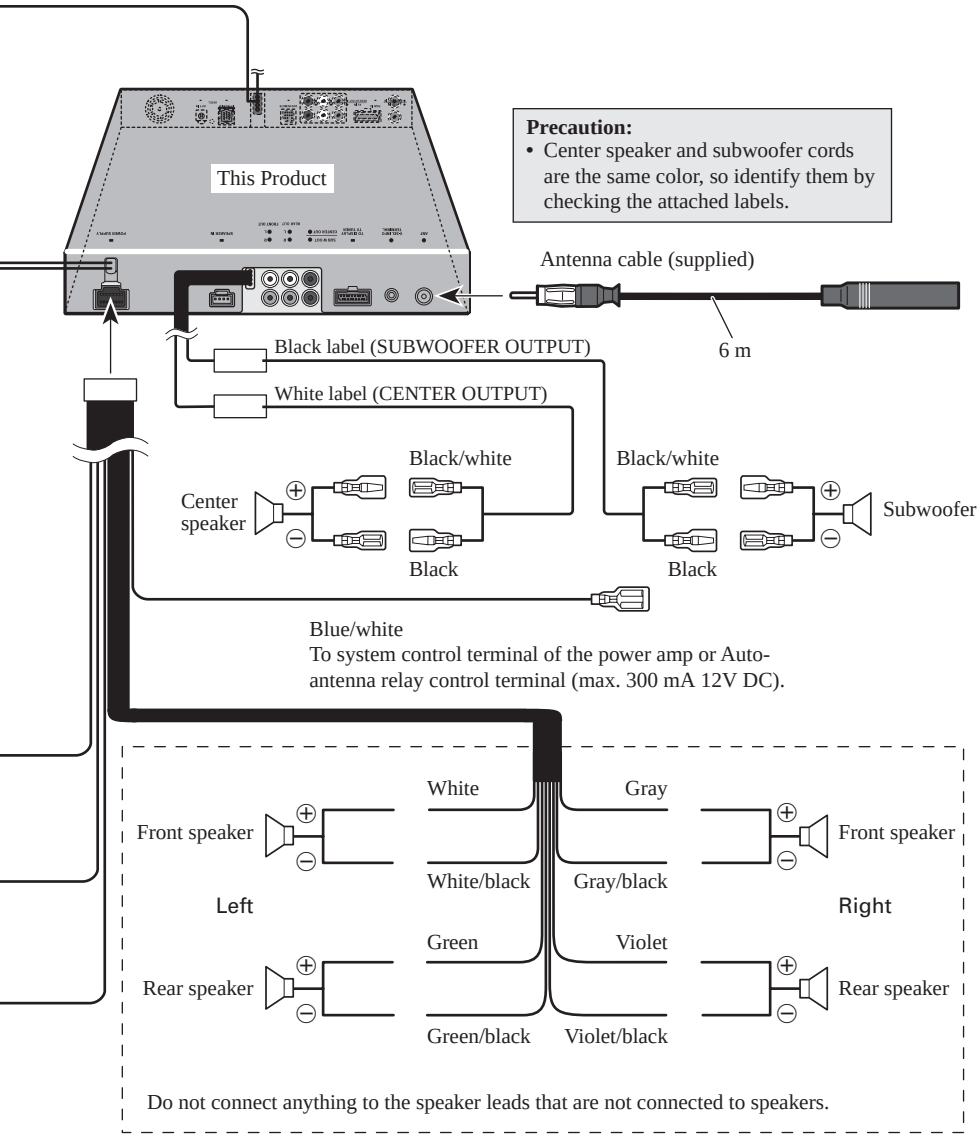


2. **Secure the optical cable.**



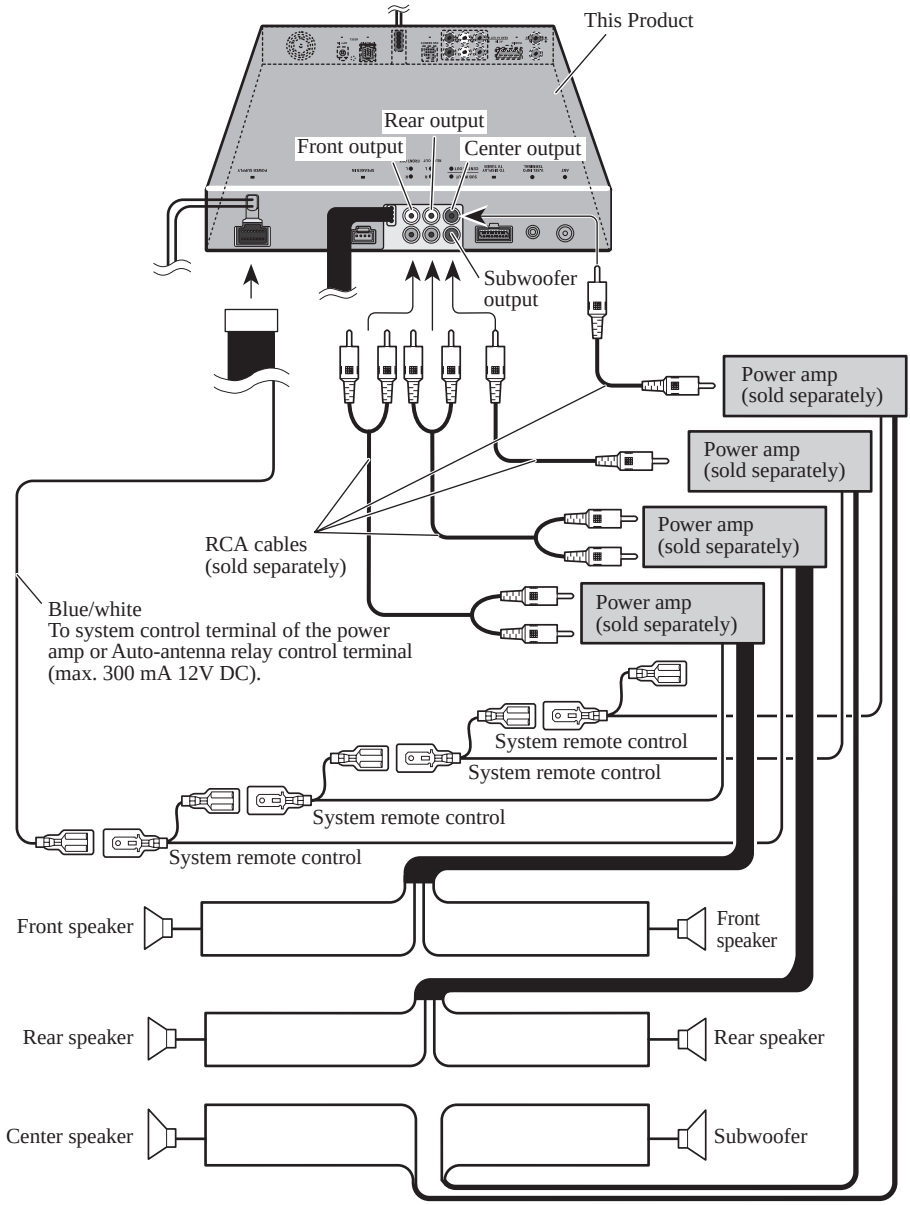
Connecting the Power Cord


Light green
Used to detect the ON/OFF status of the parking brake. This lead must be connected to the power supply side of the parking brake switch.
Parking brake switch
Power supply side
Ground side
Connection method
Clamp the parking brake switch power supply side lead.
Clamp firmly with needle-nosed pliers.
Note:
• The position of the parking brake switch depends on the vehicle model. For details, consult the vehicle Owner's Manual or dealer.
Fuse holder
Extension lead
Red
Red
To electric terminal controlled by ignition switch (12V DC) ON/OFF.
Precaution:
• Be sure to use the supplied accessory extension lead.
Black (ground)
To vehicle (metal) body.
Yellow
To terminal always supplied with power regardless of ignition switch position.
Fuse holder
Orange
To lighting switch terminal.
Fuse resistor
Yellow/black
If you use a cellular telephone, connect it via the Audio Mute lead on the cellular telephone. If not, keep the Audio Mute lead free of any connections.


This Product
Precaution:
• Center speaker and subwoofer cords are the same color, so identify them by checking the attached labels.
Antenna cable (supplied)
6 m
Black label (SUBWOOFER OUTPUT)
White label (CENTER OUTPUT)
Black/white
Black/white
Center speaker
Subwoofer
Black
Black
Blue/white
To system control terminal of the power amp or Auto-antenna relay control terminal (max. 300 mA 12V DC).
White
Gray
Front speaker
Front speaker
White/black
Gray/black
Left
Right
Green
Violet
Rear speaker
Rear speaker
Green/black
Violet/black
Do not connect anything to the speaker leads that are not connected to speakers.

Connecting to a Sold Separately Power Amp

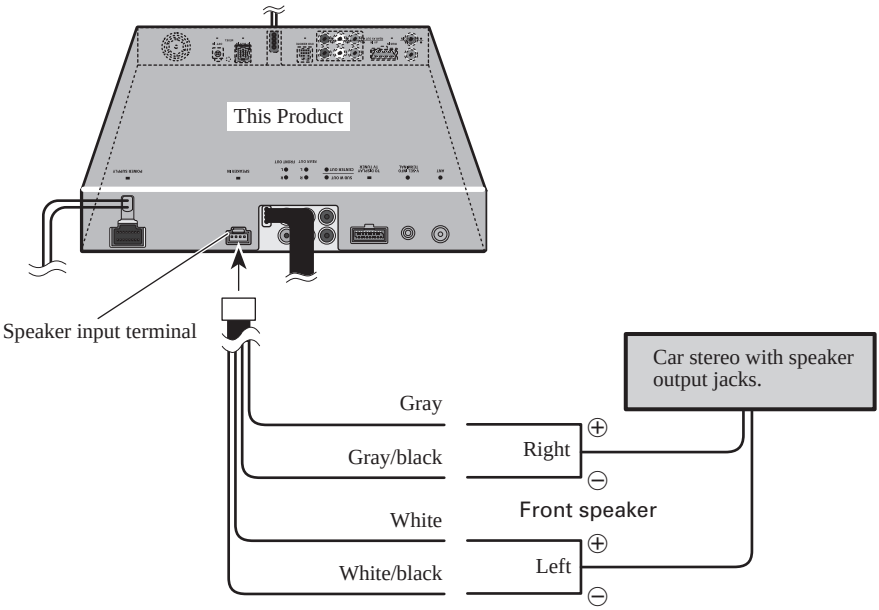
This product can be connected to a sold separately power amp using the RCA output jacks.



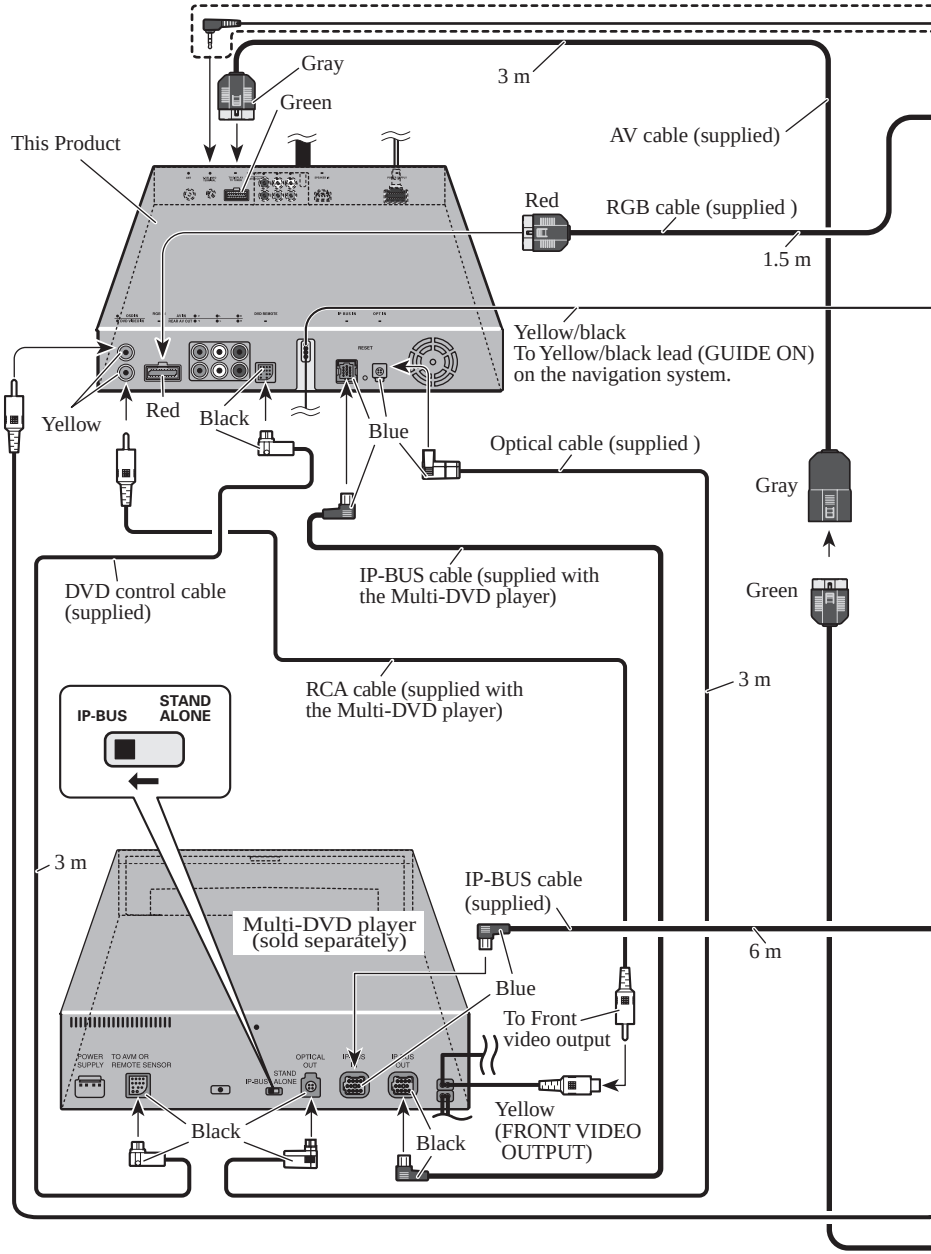
Perform these connections when using a different amp (sold separately).

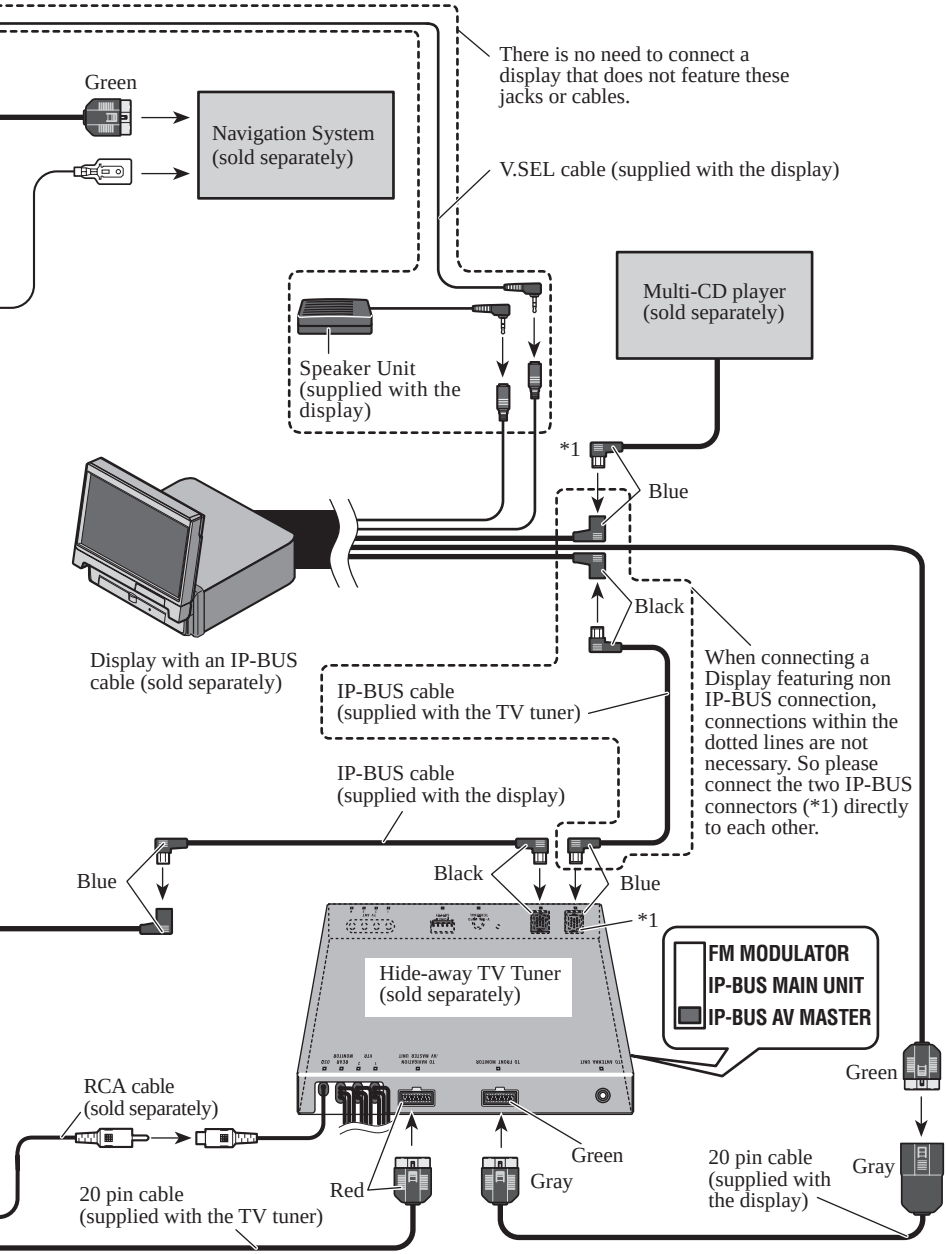
Speaker Input Jack Connection

This product also can be connected to a car stereo without RCA output jacks by using the speaker input jack.

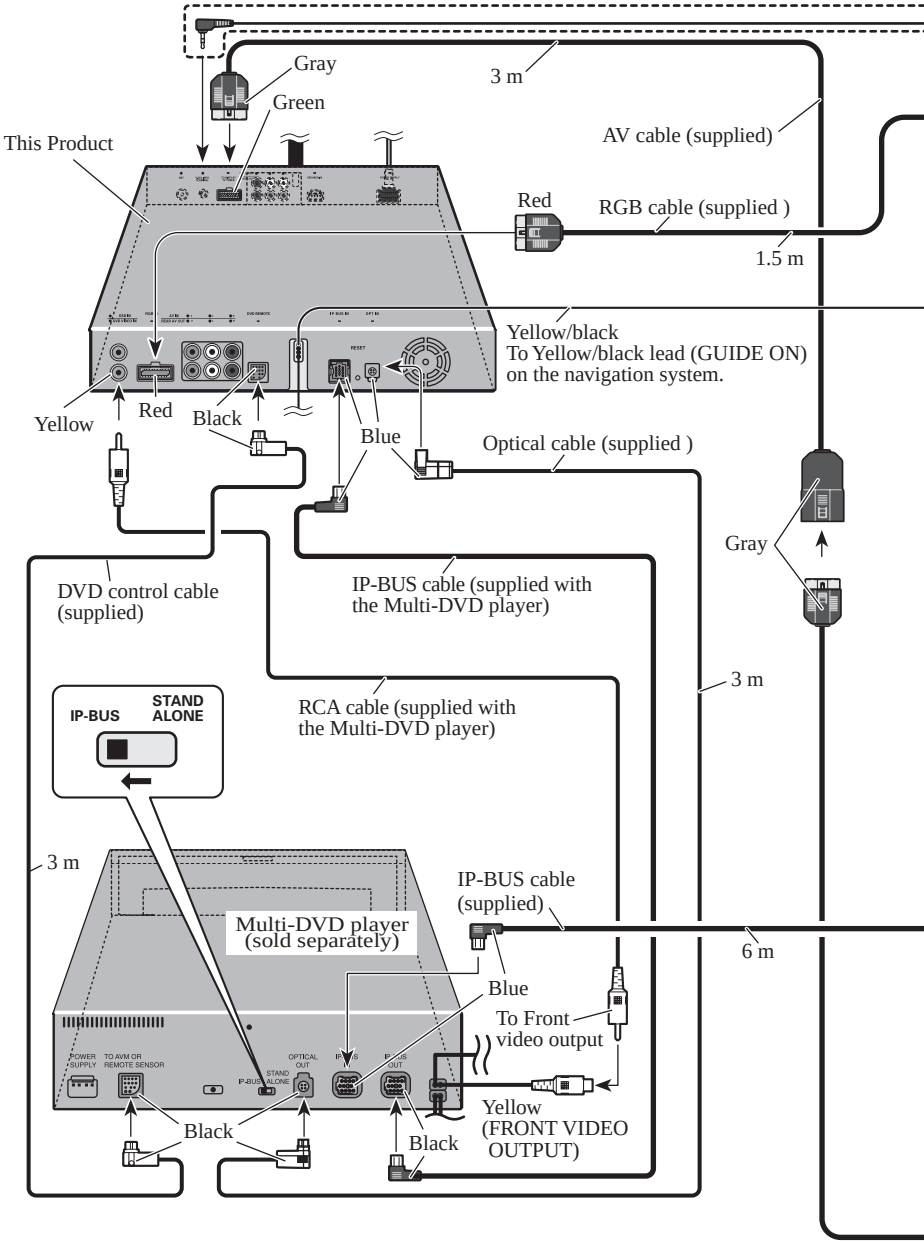


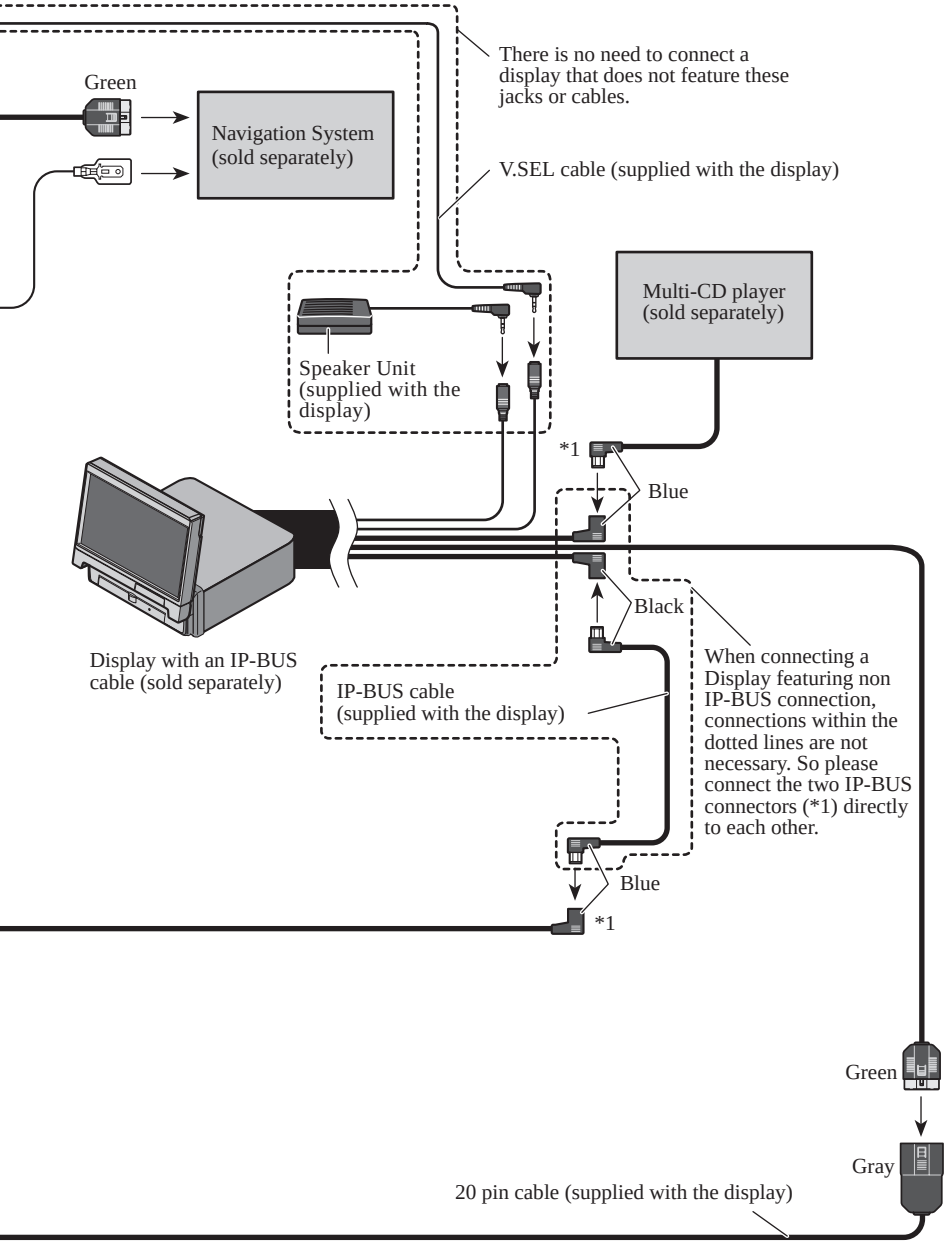
Connecting the System (A)




There is no need to connect a display that does not feature these jacks or cables.
Green
Navigation System (sold separately)
V.SEL cable (supplied with the display)
Multi-CD player (sold separately)
Speaker Unit (supplied with the display)
*1
Blue
Black
Display with an IP-BUS cable (sold separately)
IP-BUS cable (supplied with the TV tuner)
When connecting a Display featuring non IP-BUS connection, connections within the dotted lines are not necessary. So please connect the two IP-BUS connectors (*1) directly to each other.
IP-BUS cable (supplied with the display)
Blue
Black
Blue
*1
Hide-away TV Tuner (sold separately)
FM MODULATOR
IP-BUS MAIN UNIT
IP-BUS AV MASTER
Green
RCA cable (sold separately)
Green
Red
Gray
20 pin cable (supplied with the display)
Gray
20 pin cable (supplied with the TV tuner)

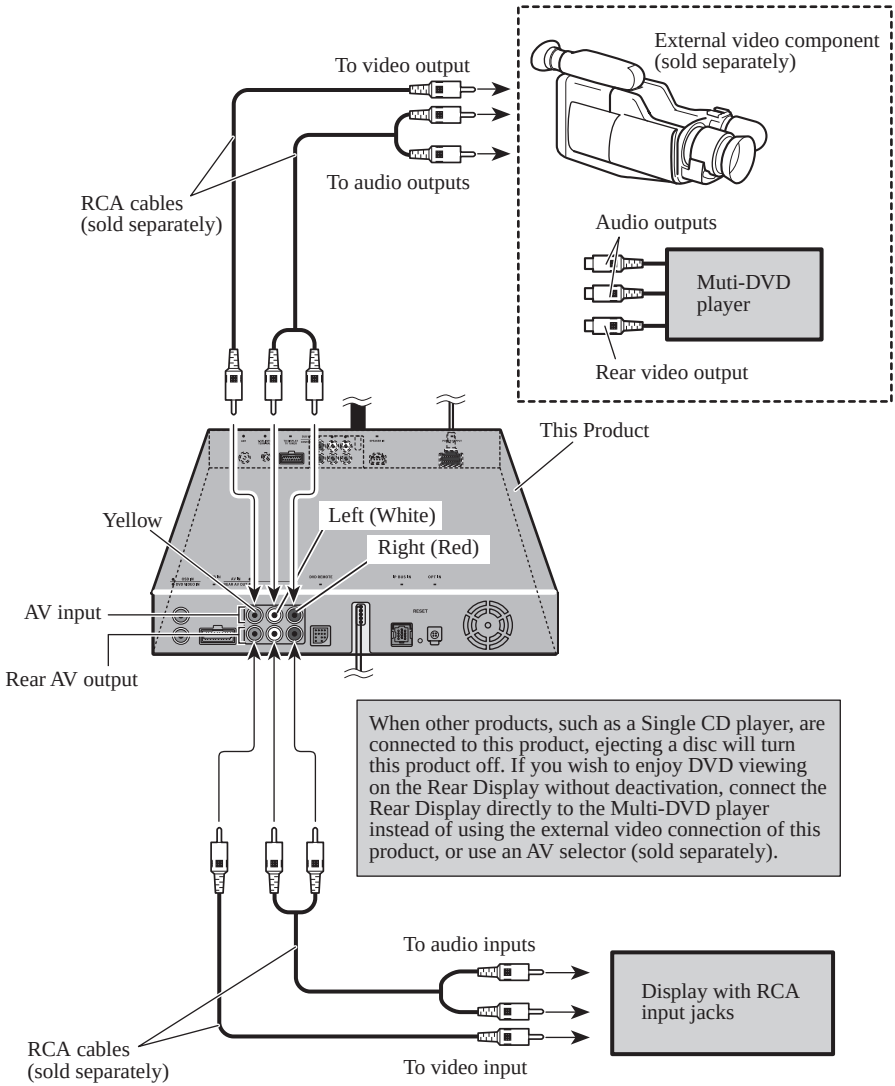
Connecting the System (B)




There is no need to connect a display that does not feature these jacks or cables.
Green
Navigation System (sold separately)
V.SEL cable (supplied with the display)
Multi-CD player (sold separately)
Speaker Unit (supplied with the display)
*1
Blue
Black
Display with an IP-BUS cable (sold separately)
IP-BUS cable (supplied with the display)
When connecting a Display featuring non IP-BUS connection, connections within the dotted lines are not necessary. So please connect the two IP-BUS connectors (*1) directly to each other.
Blue
*1
Green
Gray
20 pin cable (supplied with the display)

VIDEO Input/Output Connection

It is possible to use an external video component by connecting it to the AV input on this product.
When connecting the Display with RCA input jacks to Rear AV output, you can also watch the external video component's picture.


External video component
(sold separately)
To video output
To audio outputs
RCA cables
(sold separately)
Audio outputs
Muti-DVD
player
Rear video output
This Product
Yellow
Left (White)
Right (Red)
AV input
Rear AV output
When other products, such as a Single CD player, are connected to this product, ejecting a disc will turn this product off. If you wish to enjoy DVD viewing on the Rear Display without deactivation, connect the Rear Display directly to the Multi-DVD player instead of using the external video connection of this product, or use an AV selector (sold separately).
To audio inputs
Display with RCA
input jacks
RCA cables
(sold separately)
To video input

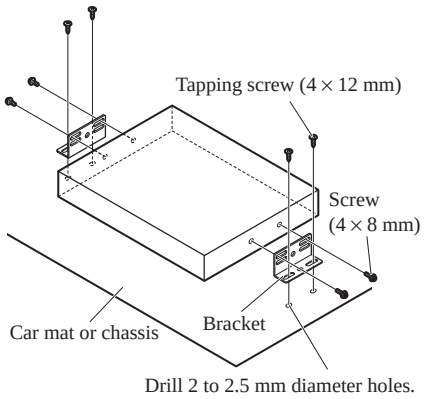
Installation

Note:

- Before finally installing the unit, connect the wiring temporarily, making sure it is all connected up properly, and the unit and the system work properly.
- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
- Install the unit where it does not get in the driver's way and cannot injure the passenger if there is a sudden stop, like an emergency stop.
- When mounting this unit, make sure none of the leads are trapped between this unit and the surrounding metalwork or fittings.
- Do not mount this unit near the heater outlet, where it would be affected by heat, or near the doors, where rainwater might splash onto it.
- Before drilling any mounting holes always check behind where you want to drill the holes. Do not drill into the gas line, brake line, electrical wiring or other important parts.
- If this unit is installed in the passenger compartment, anchor it securely so it does not break free while the car is moving, and cause injury or an accident.
- If this unit is installed under a front seat, make sure it does not obstruct seat movement. Route all leads and cords carefully around the sliding mechanism so they do not get caught or pinched in the mechanism and cause a short circuit.

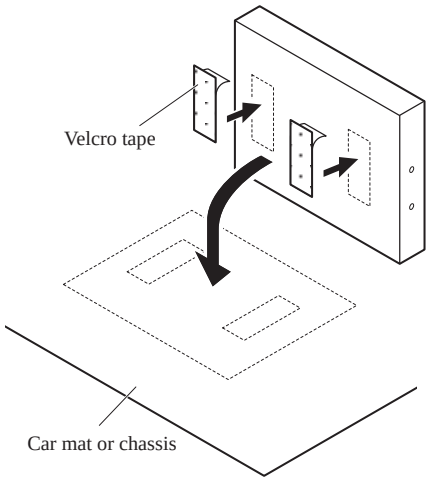
Installing the Unit

■ Mounting with Brackets



■ Mounting with Velcro Tape

Thoroughly wipe off the surface before affixing the velcro tape.

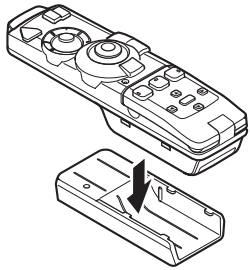


Installing the Remote Control Unit

Fitting the Remote Control Unit

Precaution:

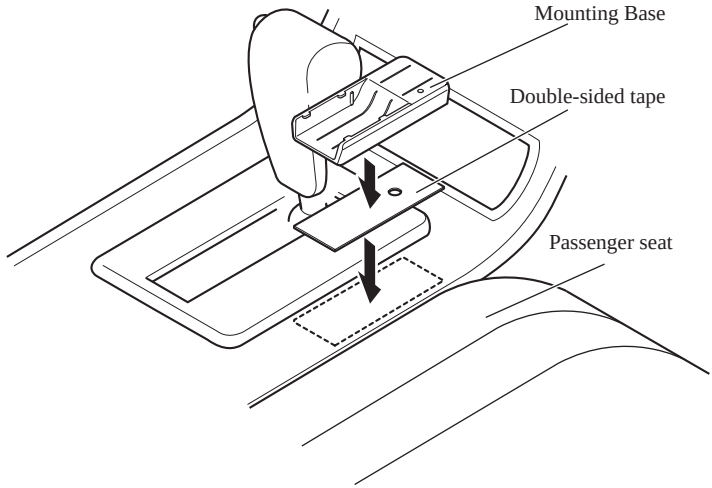
- Press the remote control unit onto the mounting base until it clicks into place.



Installation Using the Mounting Base

Precaution:

- To avoid it being a hindrance to driving, always install the remote control unit to the passenger's side — not the driver's side.
- Before using double-sided tape, clean off any dirt on the surface to which the double-sided tape is to be attached.



Specifications

General

Power source ..... 14.4 V DC (10.8 – 15.1 V allowable)
Grounding system ..... Negative type
Max. current consumption
Backup current ..... 10 A
Accessory current ..... 4 A
Dimensions ..... 307 (W) × 51 (H) × 187 (D) mm
Weight ..... 2.5 kg

Amplifier

Maximum power output ..... 45 W × 6
Continuous power output ..... 22 W × 6
(DIN45324, +B=14.4 V)
Load impedance ..... 4 Ω (4 – 8 Ω allowable)
Preout maximum output level/output
impedance ..... 2.2 V/1 kΩ
Decoder
.... Linear PCM/Dolby Digital/Dolby Pro Logic/DTS
Equalizer (3-Band Parametric Equalizer)
(Low) ..... Frequency: 40/80/100/160 Hz
(Mid) .....Frequency: 200/500/1k/2k Hz
(High) ..... Frequency: 3.15k/8k/10k/12.5k Hz
Level ..... ±12 dB
Subwoofer output
Crossover frequency ..... 63 Hz, 100 Hz, 200 Hz
Level ..... ±10 dB
Speaker setting
Time Alignment ..... 0 – 500 cm (2.5 cm)
Level ..... ±10 dB
Equalizer ..... Band: 3 Band
Frequency: 100/125/160/200/250/315/
400/500/630/800/1k/1.25k/
1.6k/2k/2.5k/3.15k/4k/
5k/6.3k/8k Hz
Gain: ±12 dB
Crossover frequency: 63, 100, 200 Hz

FM tuner

Frequency range ..... 87.5 – 108 MHz
Usable sensitivity ..... 11 dBf
(1.0 µV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity ..... 16 dBf
(1.7 µV/75 Ω, mono)
Signal-to-noise ratio ..... 70 dB (IEC-A network)
Distortion ..... 0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response ..... 30 – 15,000 Hz (±3 dB)
Stereo separation ..... 40 dB (at 65 dBf, 1 kHz)

MW tuner

Frequency range ..... 531 – 1,602 kHz (9 kHz)
Usable sensitivity ..... 18 µV (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)

LW tuner

Frequency range ..... 153 – 281 kHz
Usable sensitivity ..... 30 µV (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)

Video

Composit input level ..... 1 V/75 Ω
PAL/SECAM/NTSC Compatible
Composit output level ..... 1 V/75 Ω
PAL/SECAM/NTSC Directly Through Input

Note:

- Specifications and the design are subject to possible modification without notice due to improvements.

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